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Vol. II

(EXHIBITS—PART 4)

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1931

No. 485

CHAMPLIN REFINING COMPANY, APPELLANT,

vs.

CORPORATION COMMISSION OF THE STATE OF OKLAHOMA AND PAUL WALKER, E. R. HUGHES, AND C. C. CHILDERS, ETC., ET AL.

No. 486

CORPORATION COMMISSION OF THE STATE OF OKLAHOMA AND PAUL WALKER, E. R. HUGHES, AND C. C. CHILDERS, ETC., ET AL., APPELLANTS,

vs.

CHAMPLIN REFINING COMPANY

APPEALS FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE WESTERN DISTRICT OF OKLAHOMA

FILED OCTOBER 26, 1931

(36,299, 36,300)

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[fol. 282] DEFENDANTS' EXHIBIT No. I, Record, p. 299

Pipe Line Runs from Champlin Leases in Oklahoma City Oil Field

McCalep—

	Gross barrels
Sept., 1930	28,517.71
Dec., 1930	146.72
Mar., 1931	79,154.87
Apr., 1931	87,077.90
May 1st to 18, 1931	48,449.99
May 19th to June 13th	none
June 14th to June 21st	none
June 22nd to June 25th	11,162.07
Total	254,509.26

Naden—

Sept., 1930	13,935.94
March, 1931	74,908.15
April, 1931	71,937.58
May 1st to 15th, incl.	49,731.81
May 16th to June 13th	none
June 14th to June 21, incl.	none
June 22 to June 25, incl.	15,399.56
Total	225,913.04

Seal—

March, 1931	66,866.17
April, 1931	53,992.79
May 1st to 28th, incl.	32,533.28
May 29 to June 13, incl.	none
June 14th to June 21st, incl.	none
June 22nd to June 25th, incl.	3,951.04
Total	157,343.28

[fol. 283] Abstract, and counter abstract of evidence, before Corporation Commission at the October, 1930, hearing, relative to the subject of waste, which abstract was prepared for the use of this Court at the hearing in January, 1931, on the application for an interlocutory injunction, offered in evidence here upon the agreement that it might be used as evidence of what the Commission had acted upon

on the subject of waste but not to be used as primary evidence in this case, Record, p. 327, which abstract so offered was in words and figures as follows, to-wit:

[fol. 284] IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF OKLAHOMA

In re Proration Cases No. 1156, No. 1173, No. 1175, No. 1176 and No. 1183. Equity

CHAMPLIN REFINING COMPANY, Complainant in No. 1156; Marco Oil & Royalty Corporation, Complainant in No. 1173; Century Petroleum Corporation, Complainant in No. 1175; Oils, Inc., Complainant in No. 1176, and Capitol Producing & Refining Company, Complainant in No. 1183

VS.

CORPORATION COMMISSION et al., Defendants.

ABSTRACT OF EVIDENCE OF WASTE IN HEARINGS BEFORE CORPORATION COMMISSION

Filed Jan. 17, 1931. Theodore M. Filson, Clerk, by Grace G. Butler, Deputy.

Allen K. Swann, Attorney at Law, Philcade Building, Tulsa, Oklahoma.

[fol. 285] IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF OKLAHOMA

In re Proration Cases No. 1156, No. 1173, No. 1175, No. 1176, and No. 1183. Equity

CHAMPLIN REFINING COMPANY, Complainant in No. 1156; Marco Oil & Royalty Corporation, Complainant in No. 1173; Century Petroleum Corporation, Complainant in No. 1175; Oils, Inc., Complainant in No. 1176, and Capitol Producing & Refining Company, Complainant in No. 1183,

VS.

CORPORATION COMMISSION et al., Defendants

ABSTRACT OF EVIDENCE OF WASTE IN HEARINGS BEFORE CORPORATION COMMISSION

Complainants in the above entitled actions herewith submit attached hereto an abstract of all of the evidence

offered before the Corporation Commission of the State of Oklahoma as shown by the records submitted as exhibits in these causes, and hereby certify that the attached abstract of the subject of waste is an abstract of all of such evidence.

This is submitted in connection with the contention of these complainants that there was no evidence of physical waste.

A. R. Mann, H. G. McKeever, Harry Glasser, Nathan Scarrett, J. B. Dudley, R. M. Rappie, B. M. Parmenter, A. E. Pearson, Counsel for Complainants.

[fol. 286] Waste

Beginning on page 79 and concluding on page 81, RAY M. COLLINS testified on direct examination that he had production in the Cushing pool and other new pools where there was an over-production and at that time they let it go down the creek saying "we could not take care of it, and our neighbors were running theirs through the pipe line"; that if there were no steel or wooden storage, or appreciable amount thereof to store oil permitted to be produced, it is a necessary result that oil must either go into earthen storage or be entirely wasted; that in earthern storage there may occur a loss of anywhere from 50 to 90% due to evaporation, absorption or washing.

On cross examination, beginning at page 100, the same witness testified that there is no waste going on in Oklahoma now whether the field is prorated or not; and that everything is running satisfactorily in Oklahoma now; that he wants to prevent actual waste which he says on page 101 is opening up a well and letting it go down into the ground; on page 103, that he wants proration to prevent actual waste for one thing and on page 104, that he would want a rule to prevent waste besides (a rule or order by the Corporation Commission stopping the tremendous drilling campaign in the Oklahoma City field. On page 110 he testifies he wants proration to prevent physical waste and to prevent one neighbor taking more oil out of it than his proportion. On page 111 Collins testifies in answer to the proposition and question: "If you take oil out from under me, I am going to run my well wide open. That is not physical

waste, is it?" "That if I let it go down the creek it will [fol. 287] be". He further says that he cannot name a producer in this field that opens his well and lets the oil run down the creek at the present time or in the last 5 years.

On page 112 he testified that if you lift proration there will be actual waste, for the reason that a man who has no pipe line facilities or cannot sell his oil will let it go down the creek; that he doesn't know of any oil being stored in earthen storage and that he hasn't known of any since about the Cushing field days which he says was about 15 or 16 years ago (page 114).

On page 115 in answer to the proposition presented where a man owns his own well, pipe line, refinery and marketing facilities for the finished product and the question as to what harm there would be in letting him run to full capacity that "as a matter of waste, if I had an offset well and you opened your well and I was not able to take care of mine, I certainly would build earthen storage and try to take care of it in that way". On page 116 he testifies that his only reason is that it would be taking more oil from his neighbor than what he considers to be a due proportion.

At page 178 Collins testified that they intended to include the Osage reservation in the proration orders, and at page 180 that he doesn't believe there is imminent danger of waste being committed there; and further that prior to the time he made the application he did not ascertain whether there was any waste in those fields other than the ones heretofore prorated. He testifies also at page 180 that in his judgment there are many areas, many wells, many leases which will have to be given special attention by the [fol. 288] Commission to prevent actual waste by reason of this order; that is wells making water and wells that have no gas pressure to speak of and others that are poorly equipped if this order is forced on them and given strict enforcement, that will be positively injured rather than benefitted.

At page 181 he says that if the little wells producing from 5 to 25 barrels per day which the contemplated order places under proration were permitted to run 100% waste would be imminent in those fields; that the waste would occur by the fact that this purchasing power has been transferred to Oklahoma City, and they would not be able to take care of

it. At page 183 he states (referring to fields of small production) that there has been no waste in the past.

At page 201 Collins says that his statement that there is no waste and has been no substantial waste in the state of Oklahoma is due to the fact of these very proration orders that have been issued in the past.

At page 215 Collins in answer to a hypothetical question "supposing the I. T. I. O. Co. had a demand for 100,000 barrels of oil per day at 50 cents per barrel which they wanted to sell and the other producers wouldn't take that for their oil, if it would be waste for the Commission to let them sell it" testifies that it would be waste (page 216-217). At page 218 he says his reason is that the other fellows would have to run the oil into earthen storage. He states further that if they could show there was actual demand and no waste he would certainly recommend it.

At page 223 Mr. Collins testified that "we" did not take into consideration the financial ability of a correlative [fol. 289] owner to drill a well; that as long as he (a correlative owner) took ratably as the common pool was prorated, there would be no waste. He says that he wouldn't try to protect any correlative owner of the common supply because he hasn't got a well on his lease (P. 224).

At page 252 Mr. Victor H. Smith testified that his company has one well in the Oklahoma City pool and that they can handle a percentage of the production from that well without any waste occurring in connection with it, but not all the potential which was rated as 150,000 barrels per day based on some two hours' gauge; that they could handle possibly 30 or 40,000 barrels per day through their plant and other facilities without waste, except perhaps waste of gas; that if they should find it would produce more than they could handle it would be operated so as to commit no waste of oil (p. 253).

At pages 270 and 271 Mr. Smith testified that if the Oklahoma City field was opened up and no limit placed on production all the little refineries in the state would open up and "the first thing you know we would have 3 cent gasoline," but there wouldn't be any waste in connection with 3 cent gasoline because "we would get a lot more airplanes."

At page 273 Mr. Smith testified that if oil were to go down in price to [illegible] cents the big companies would build tanks to

put it in and that there would be a waste in connection with the storage of oil in steel or earthen tanks. At page 275 Smith says he doesn't believe there would be any waste of oil if the Commission should set aside its orders and turn everybody loose in the Oklahoma City pool, unless the pro- [fol. 290] ducers would be foolish enough to try to put light oil in earthen storage. In answer to the question: "Isn't it a fact that in every flush field that we have had in Oklahoma where we didn't have proration they have put it in earthen storage?" he says: "I wouldn't say so on light oil." Upon being asked if they didn't do it in Cushing he replied "Yes, if you go 'way back in the old days. They didn't have anything else to do with it." He says they did that at Smackover but not on light oil. He states there is waste on heavy oil in earthen storage but not as much as the light (p. 276). The small producer would take the crude as far as his facilities would permit and without waste. If the larger producer cannot ship all of his oil out he will keep his wells shut in until he can increase his facilities so as to handle more. P. 277.

Mr. Dye testifying at page 300 says that to shut in wells entails waste of oil because "if you shut in a well you never get the maximum production back in some cases". The witness further testifies at page 304 that he has been engaged in the oil business since 1916 and that they have never had any waste; that he doesn't know of any waste in the production or handling of crude oil anywhere and that the question of waste is not bothering anybody at this time as far as he knows.

At page 308 the following question was asked: "In your judgment, if proration orders were lifted by the Commission in that field (Oklahoma City) and that field was opened up, would there be any waste of crude oil or would there be any taking out of proportion by one operator of a well as against another?"

[fol. 291] The witness, Dye, replied: "There would be a discrepancy in the taking of oil; but I doubt whether anybody would allow the oil to flow down the creek. They would probably keep their wells shut in if they couldn't sell it." At page 309 he says it is problematical as to whether there would be and waste of crude if the lid were taken off and that field were opened wide up; it would depend, necessarily, upon how the operators in the field would work.

At page 328 Mr. Dye testifies, relative to waste, that if all the producing companies that have manufacturing and marketing facilities would take the position that they were going only to produce and manufacture their own products it would cause a lot of waste and abandonment of old wells if they continued to drill the way they have been.

Mr. E. B. REESER testifying at page 333 states that if production were in excess of reasonable market demand the condition of waste would follow. At page 324 he says by physical waste he means that "whenever you produce oil in excess of the demand it either goes into earthen storage or tanks; or down the streams or water courses, and in either event loss results." He says he doesn't know of anybody in Oklahoma today that is running oil into streams, nor of anybody that is putting it in earthen storage, or of anybody that has in Oklahoma within the last 10 years. To the question: "Then there is no running down the streams nor putting in earthen storage, so your idea, so far as Oklahoma is concerned, Oklahoma is not now suffering an economic waste?" he replied: "No; I am talking abont what would result if more than the market demand were produced." He states [fol. 292] again at page 335 that there is none run down the streams but that physical waste would result if a volume greater than the market demand was produced; that would result if put in steel storage by evaporation. At page 338 he states he doesn't want an over-supply because it would produce waste by placing it in steel tanks; and in that event you would have an added waste of the cost of producing your tankage, and then the evaporating losses". He says: they should be required to stop storing oil in steel tanks because that would stop waste by steel tankage.

Mr. Reeser testifying at page 391 says that if there were not restrictions of production there would be actual waste; that waste has been prevented by the orders of this Commission from time to time; that prior to the time we had the law under which we are now operating there were conditions of actual waste in times of overproduction; that there was earthen storage in Oklahoma; that there was waste and that there was oil going down the creeks.

Mr. C. C. HERNDON testifying at page 403 says that in his judgment if there were not a proration order in effect, or

if one were not continued in effect, there would be actual waste of crude oil in the state of Oklahoma; that he considers such waste imminent if no such order were made; that the potential production of crude oil in the state of Oklahoma is in excess of the reasonable market demand for it. At page 429 the same witness states: "where the potential production of big flush wells in the aggregate largely exceeds the reasonable market demand, then to permit one man, because he happens to be equipped with these things, [fol. 293] to operate his wells to capacity or above the level that can be maintained by others, either induces waste on the part of the others or causes the loss of other oil to the other man, which in turn leads back to waste, because under those circumstances men protect themselves in the best way they can."

Mr. Herndon testifying at page 437 says he knows of no wells in the Stephens County field where the oil is being wasted, and at page 439 he says that up to this time there is nothing wrong with the way the oil has been handled in Stephens County, but there will be something wrong if they are not brought under this proration order because there will be a transferrence of purchasing power to Oklahoma City.

At page 441 he testifies that in figuring on cutting down the production in Stephens County as keeping it cut down and preventing further development by test wells that is now in effect under the proration order they have not considered the welfare of the producer of oil but rather the alleviation of waste in this state during this time of overproduction. He says at page 442 that he is not assuming that the producer in Stephens County has committed any waste but he thinks he will within the meaning of the statute. He doesn't know where in the Stephens County any man has committed waste in any sense but that it is imminent; that waste will occur. That it will be done by production of oil in excess of the market demand for it. If the Stephens County people increase their production 500 barrels per day that will constitute waste, if there is no market demand for it. If there is a market demand for it, it will not.

[fol. 294] At page 455-456 Mr. Herndon answers the question: "You would not waste any of your oil, would you?" with the reply "I dare say we would".

Mr. A. V. HOENIG testifying at page 466 says he doesn't believe the full production of the Oklahoma City field could be produced without waste and that in his judgment the continuance of some sort of a proper proration order is necessary to prevent waste in the field; and at page 467 that to produce this field without restriction or proration would result in a very material waste of oil and gas.

Mr. OTTO BRADFORD testifying at page 531 says that in his judgment the Oklahoma City field could not be produced at its maximum production without physical waste for there is no way for a good part of the oil, at present, to be handled; that if the wells were all producing he thinks it would necessarily result in earthen storage or actual escape down the streams; at page 532 he says that he knows of no demand here for purchasing oil to be put in storage.

At page 533 he stated that it is his opinion if they were to open up all the wells in the Oklahoma City field they would put it in earthen storage; but that they could keep their wells shut in if they would. At page 534 he says he knows of no big oil company who now stores oil in earthen storage because there is no need of it, nor of any producer of oil that runs it down the creek—that that is a past matter of many years ago.

At page 536 Mr. Bradford was questioned as follows: "Assuming that testimony to be true, and assuming that there is a refinery in this city with an outlet running into this field and has its own production in this field and it [fol. 295] takes that production and runs it to its own pipe line, refines it in his own refinery and markets it through its own marketing facilities, in the usual and ordinary way that refining business is carried on, wherein would there be any waste in such a transaction? He answers: "There probably would not be any waste in the operation of that particular one well if the offset wells would remain shut in". He states this man's activities would not be waste but that it would probably result in waste. It would result in waste because if he had the offset well he would run it same way—to the pipe line, tank cars or turn it loose. He says if he could not sell it he would let it run down the creek.

At pages 540-541, the same witness testifies that to open the field up would necessitate the use of earthen storage; there is not enough available storage to take care of it though they could probably have built tanks along from time to time so as to have had plenty of facilities for taking care of it.

At page 547 the witness testified that some wells have gone dead but that he is not a production man and does not know the cause. These wells were all in the lime production. Water swallows them quickly.

Beginning at page 555 and continuing through page 557, Mr. Otto Bradford, testified that he was acquainted with the Healdton field in the days of its glory in which a situation was created (which approximately gave rise to the present law), where the thousands of barrels of oil were put in earthen storage, plus that which ran down the creeks from which there was enormous wastage involved by evap- [fol. 296] oration, seepage and running down the creek; that the numerous skimming plants erected on the creeks did not in any way recover all the oil that went down the creeks; that he did not know the per cent of earthen storage but that he knew of several earthen storage tanks that were built; that these storage tanks retained some of the oil but that some was lost by seepage, and quite a little was lost by execessive rains which would soften the dams and they would go out. This was not due alone to the fact that the production was more than the market demand but that the only pipe line in the field, Magnolia, could not possibly take care of all the production. They ran their own and a little besides so the other fellows produced any way they could to hold it. At page 559 he says all this took place about 1914 and at page 560 he says this field produced low gravity oil and that the higher the gravity the more the evaporation.

At pages 568-571 Mr. J. R. Travis of Duncan, refiner, pipe line owner with refinery connected with 195 wells and with many years in the business, qualified as an expert. He states he was in the Cushing field; that there was no oil went into earthen storage during the Cushing book, there was some that went down the creek which occurred when they were bringing in the wells and did not shut them in properly or occurred when they were swabbing the wells after

the gas pressure went off and the big waste occurred in 1913 and early part of 1914 and in 1915 or January 1916 the waste had ceased. He purchased oil in the Burnett field, Cotton County field, Stephens County field, Oklahoma City field and has been out there many times, and said, "I have never known of any deliberate waste where they wasted it purposely never in the history of my experience in the oil business". In the Cushing field oil was wasted on account [fol. 297] of the equipment not being right to hold it. They put it in wooden tanks and they leaked and were not well fixed to take care of the oil. They drilled a lot of those wells there without even having a mastergate, but under the improved modern methods producers are equipped with steel tanks. There are no wooden tanks any more, all tanks are steel and no earthen tanks for storage that he knew of. He says we hear nothing of that kind anymore. The various ways that crude oil in the process of production can be wasted, or if when bringing in the well they are not properly equipped in case of swabbing and when they are shooting wells all those conditions will exist whether there is a proration order or not, and the proration orders pretend to have nothing to do with the bringing in of the wells or the control of the drilling. "With our modern methods of handling I think there would be no waste to amount to anything unless it might be in the shooting of the well", but the proration order has nothing to do with that and the witness knows of no other kind of waste that occurred in connection with the production of crude oil. He has been in the business about 30 years.

At pages 584-585, Mr. Travis states that there would be no waste if he were permitted to take his oil out, run it through his pipe line and into his refinery; that the only waste he could see would be a reduction in price, that he doesn't know of waste now such as it has been defined by the various witnesses. Again at page 587 he testifies that he has his own pipe line and marketing facilities and that [fol. 298] absolutely no waste occurs in connection with the handling of it.

The same witness testifies at pages 589 that you can't shut a well in without hurting it. He says "You have no business drilling that sand. If you leave the drill out of the sand you won't hurt the sand, but once you drill it you had better produce it." At page 590 he adds "Because it

goes somewhere. I don't know where it goes. The water comes in on it, and if the water wouldn't come in on it the gas goes somewhere; the gas gets away from you." He states the only remedy for over-production is the cessation of drilling.

Mr. Travis testifying at page 604 says the situation will take care of itself if let alone and there will be no waste. The Corporation Commission or the farmer will not let you run it down the creek. He has never known of any going down the creek maliciously or any other way in the last 15 years. Sometimes they will let a well get away from them. P. 605. He says "there has been no oil wasted and there would be no oil wasted unless it happened like a wild well out here of the I. T. I. O. that got away from them. There has been more oil wasted, I expect, in this field than any other field in the state in the last 10 years which he says is even under proration and none of it done on purpose for that would happen whether there were proration orders or not.

The same witness testifying at page 629 states he is tied onto 195 wells in the Stephens County district; "there is not a well that I am tied onto, with the exception of one, [fol. 299] that it wouldn't ruin it to be shut down." At page 630 he says "I have always been told and thought that we must not shut them in. I have had a producer come to me at 2 o'clock in the morning and get me out of bed so I could run his oil; if I didn't he was going to have to close the well in and ruin it. I have heard nothing contrary until the last year or two".

In reply to the question as to what would be the effect on a well of shutting it in for a certain number of days under the proration order the witness says that "all the wells that I have ever had any experience with the water either came in or the sand paraffined up. If the water comes in it is hard to ever get it off the sand. If it paraffines up you might shoot it and get it off the sand." As to the effect on the ultimate recovery of a pool like that at Oklahoma City of shutting in the wells that it would hurt them if allowed to flow wide open but to pinch them in and let them flow some all the while would help the wells.

At pages 659-660, Mr. Travis on cross-examination testifies that there are some oils you can't waste by putting it in earthen storage but most Oklahoma oil would be wasted

if put in earthen storage. If put in tight steel storage he knows of no waste that would occur. There is some initial loss by evaporation. He stored some in Stephens County 10 years ago and there is probably a 2% waste there He says at page 663 that it would be a crime to put Oklahoma crude in earthen storage outside of a little heavy asphalt base crude but that he doesn't know of any earthen storage in recent years. He states there would be a small loss if put in steel storage and left for any appreciable time. He [fol. 300] doesn't know anything about the Smackover field or of earthen storage used there.

The same witness at pages 671-673 says he is not favorable to any kind of storage except in cases of emergency like we have now; that oil is a lot better out of the ground in storage than it is in the ground mixed up with salt water, if you tap a field you ought to go ahead and operate—that it is better to take it out after it has been tapped; that the loss would not be near as much by storing it than it would if you leave it in the ground after the field has been tapped like this one. At page 672 he says that if your storage is tight, the ordinary Oklahoma crude will probably lose from 1 to 3% over a year and then it won't lose any more; that there is some loss in handling high gravity crude or gasoline any way you handle it whether you have proration or not and tanks are strapped 3% short to cover that whether they run it immediately to the refinery or not. He states at page 374 that he knows there is 100,000 barrels of $3 or $2.70 oil stored in the Duncan field and that it has been there over 9 years.

Mr. A. V. Boswell after stating that he has been connected with the oil business 30 years as a hydraulic, petroleum and mining engineer says he has had experience at Bartlesville, Kiefer, Glenpool, Ardmore and Oklahoma City. He says at page 711 that his experience has been in the drilling in of any wells that he has operated in, as long as you keep those wells flowing and allow them to flow freely, you are going to get a full production, but when you close a well in, either completely or partially, [fol. 301] you are going to ruin, to some extent, the production of oil from that well. He says we have tried it several times, at least in 5 fields in Oklahoma and that has been his uniform experience without any exception.

He says at page 712 that it has always been the individual engineers' judgment upon which they all agree, as far as he knows, that it is injurious to a well to shut it in. There are three ways it is injurious to a well to shut it in. You might kill the well altogether with water. If it is a paraffin base, those little crevices where the oil and gas comes from might become what we call leaded up, or closed up by the paraffin, or the substance that we call paraffin. If it is asphaltum base the same thing applies. Those wells are going to be injured. That has been our advice as long as I can remember, even back in the Pittsburgh field in Pennsylvania. Confining it directly to the Oklahoma City field, the condition of the sand on the west side of the field would perhaps not injure a well quite as much as on the east side where it is a lime formation. I would consider the well would be ruined if shut in 65 days.

The witness says at page 713 that the history of the wells is that when you reach the lime formation you are much more liable to get salt water than you are in the sand formation. In Oklahoma City those that have been shut in when opened again have not produced like they did when they were closed in. There has been more wells on the east side of the field that have decreased in production so that actual experience bears out the theory. He says shutting in these wells will have no tendency to conserve the oil, either for the use of future generations or for any [fol. 302] other time. The losses from closing those wells would be so much more than the losses would be from the development of the wells so that in his opinion the shutting in of the wells causes waste rather than conservation; after the sands have been penetrated, it is much better to keep them open. These things are just as well known as the multiplication table. He says "We fellows who have observed those things and examined them have found that is true in every instance." He states this was true in Bartlesville, Glenpool and Ardmore.

At page 715 he says that when a field comes in there is always flush production caused by gas rock pressure, and gas pressure which is larger in the beginning and later recedes; if the wells are permitted to produce it keeps all the avenues open. He states at page 718 that he has observed the Hall-Briscoe well No. 1 which came in at 25,570

barrels and the flow was retarded by being closed in so that they are now able to get only 18,000 barrels; and on page 719 he says shutting in the well was what injured it.

At page 722 the same witness testified that he doesn't think there is any wastage of oil in this field at all; that he has never seen any; that the proration orders have not cut down actual physical waste.

The witness states at page 723 that when there is actual physical waste that is the fault of the one who owns the patricular well which is governed by statute. He says there is no reason why one should be penalized when he [fol. 3] is not committing waste because some one is committing waste; there could be no erroneous waste in connection with the operation of this field if it were permitted to run wide open. At page 724 the witness says any producer should be sent to the asylum if he opened up his wells and let it run wild out into the field.

Mr. Boswell states at page 735 that when you cut off the production you are going to hurt the wells and when you hurt the wells you are creating a waste right there; you are wasting your own substance. Again at page 738 he says shutting in the wells to 25% would cause a waste and loss; by restriction as it is we will have ruined wells; again at 739 he says it would injure the wells to shut them in to 25%. At 740 he says the better way is to let it flow unrestrained if you want to get the full value; that it is better to let it run steadily.

At page 741 the following question was asked:

"Now, for the first time in this proceeding, I would like to ask you this: Having solely in mind the advantage of the people of the State of Oklahoma, and we will say the future generation of the people of the State of Oklahoma, as influenced or affected by our great natural resource, crude oil, which is the better way to conserve those interests, to let these wells run freely, except as restrained from physical causes, or to have them run under proration orders as they are now being run?

A. Well, the former, I should say, would be very much better.

Q. Now, why?

A. Because if you want to adjust this matter and get the oil that is already developed, you have got to let it

run unrestrained. Now, that is going to run the price of oil down some, and when you do that, that is going to stop the fellows in the wildcat field, and there is the only place it can be regulated, because when you drill into an area or into a triangle like this and start development, you cannot stop that oil from flowing. If you do you are just as liable to ruin your well as you are if you drop something in it and ruin it."

[fol. 304] At page 742 he says he thinks it would be better for the consuming public and also better for the state of Oklahoma as a state and an entity that these wells should be permitted to run open continuously, in the meantime restraining actual physical waste. At page 769 he states that he thinks the proration orders have increased waste by reducing the ultimate output of the well.

The same witness testified at page 777 that he doesn't think there would be any waste of oil at all if you opened the Oklahoma City field wide open; it would go to markets and storage. At page 779 he says the average loss in storage is about 2% in steel tanks which you have lost but if you shut in a well you are going to lose 25 to 30%, maybe 50%, maybe all of it. He testifies at page 780 that he doesn't know of flush fields running oil down the creek; that wells got away at Cushing and Healdton just as the Mary Sudik at Oklahoma City and some oil was lost; that was an accident. At page 781 he says there is nobody that is putting oil in earthen tanks now and he knows of nobody who would if they opened this thing up; producers in no state whether they have proration or not is going to put it in earthen tanks.

Mr. JAKE HAMON testifying at page 810 makes the statement that "If this proration plan is put into effect we believe that it will save our wells from waste; if not, economic waste will certainly be obtained, because the small producer cannot afford to build steel tankage for his oil. The cost of the average tank for the average small production is prohibitive. Our production will be wasted.

[fol. 305] Beginning at page 813, Mr. L. C. Hivick says with reference to the waste of crude oil in the last 10 years in production or marketing that "the new equipment has cut out considerable, cut out, I might say, seven eighths of

the waste of oil to what it was in the early days, such as control heads and gate valves, Christmas trees, and different ways of equipping them up. They have now all steel tanks, and we used to have all wood and they were leaking.

At page 810 he says if the proration orders were lifted, there would be no more waste than there is now. Proration orders do not affect waste. He states again, at pages 818-819, that he does not think lifting the proration orders will have any effect upon the matter of wasting of oil. He says he couldn't see where it would waste any more to lift the proration orders unless the man was just an outlaw and violated the orders that now and always have been here to preserve the state's resources.

The same witness states at page 823 that he doesn't think they would open up the wells and let it run out on the prairie if the quantity taken out was greater than the shipping facilities; he says he never heard of it in Cushing or Seminole and he was in all of them; the only cases of that kind would be where the wells got away.. He says they have not had proper equipment up until late years and some oil would be wasted until they could "harness" up properly. There would be some oil run down the creeks from the sun heating against the wooden tanks.

The witness says at page 824 that it has always been [fol. 306] conceded that it hurts a well to shut it in; in some ways shutting in a well has a tendency to create waste of crude oil; you would get more oil, a lot more, if you keep your well open. As a matter of conservation he states as long as he could sell it he would let it run. At page 837 the witness states "I don't think they are wasting any more oil here because they have proration, than they would if they did not have it."

Ed Trippett testifying at page 859 says "as a general proposition I think that the closing in of wells will hurt them. Some cases it does not; more cases it does." Where the well is producing some water and the gas pressure is weak to shut it in would ruin it in course of time. He says he has seen wells that were good oil wells shut in that were not making any water and when they opened them up for at least three weeks they would not make any oil at all,

and others making both oil and water that never came back. Some were opened up in Oklahoma City that were not making any water and it did not seem to hurt them.

The same witness testifies at page 869 that if you want to conserve the natural resources of crude oil and prevent the waste thereof don't drill into it and if you have it would be better to get it out of there while they can; there is a certain amount of waste no matter how you handle oil.

Mr. Trippett states at page 873 that he thinks it hurts a well to shut it in if it is making any water at all. At page 874 he says he thinks the south wells in the Oklahoma City fields are making water. He states again at page 881 that he thinks there is more waste under proration than with-
[fol. 307] out because oil is left in the ground that can never be recovered.

The witness states on page 890 that if he owned a lease from which he could not dispose of his oil although his neighbor could he would leave his in the ground. At page 901 he says he can sell his full production without causing any waste of crude oil.

At page 921, Mr. WILLIAM A. SPRINGALL, a representative of the M. K. T. Rd. Co. says if they were permitted to handle as much oil over their road as they might they could handle it without any waste of oil.

Mr. E. W. JONES testifying at page 915 says that it is not the desire of any operator in the Oklahoma City pool or any other pool in the state of Oklahoma to waste crude oil; we naturally would not waste it and if run to full capacity there would be no waste; I would just produce and sell the amount of oil that I could sell; as a matter of business or enterprise and judgment, we would not permit it to be wasted, as a matter of economical waste we would not do it, or as a matter of physical waste we would not do it; every operator that is honest with himself will produce only the amount of oil that he can sell. At page 946 he states that he has heard a lot of them say that they would produce it right on the ground but "I have been operating a long time, and I have never seen it done deliberately."

At page 949 Mr. Jones says that it has been the general opinion of operating companies in the oil business in every field I have ever operated in, and I have operated in a num-

ber of them, that to shut in a well completely has been known to kill wells entirely; neither I nor any other operator in the [fol. 308] Oklahoma City field knows "what the effect is to shut it in"; he says: "I know of one well in Texas that came in for 25,000 barrels per day, they opened it to fill their tankage and shut it off for additional tankage, they shut it off and opened it, and it has never produced a barrel of oil to this day." He says the pinch in is the recognized, modern and better way to do it because it keeps the channels open to the well. p. 950.

Mr. Jones, at page 983, in answer to questions asked by Commissioner Capshaw, said "I operated in Seminole and Bowlegs and Little River, and all of the fields of recent flush production in Oklahoma and I have not seen any wastage of oil since the days of Spindletop and Smackover and some of those big flush fields in Texas". And again at page 985 he states "I never did see any waste (referring to the Seminole fiel-s). I drilled lots of wells there. So far as physical waste is concerned in Seminole and Little River and Earlsboro and all of those fields, I never saw physical waste there, unless a well got wild, just like the Mary Sudik did". He states further that he had never heard, in his lifetime, of a man anywhere deliberately opening a well and running it on the ground and not trying to take care of the oil. He saw it run on the ground in earthen storage tanks and that was customary in Goose Creek and all through South Texas—they never figured that a waste. He said that would cause a lot of it to go down the creeks when they had a big rain just like storms killing people when you didn't expect it to come.

Mr. W. P. Hoseman testifying at page 997 says that where the wells are opened intermittently there is a loss [fol. 309] of from 10 to 20% which is not recoverable—that is, lost forever. He figures (p. 998) that 10 to 20% more would be recovered under the pinched-in method. Shutting in after reaching the oil sand results in wastage over what would be recovered in oil if the well were permitted to flow steadily, even though on a percentage flow. The orders in force result in a direct waste of the available oil underlying the Oklahoma City field, which would be underground waste of 10 to 20%. He says, on page 999, that the cause of the recoverable oil being decreased when the well is shut in from time to time over and above the

amount it would be if permitted to flow all of the time although pinched-in is due to the fact that there has been established a pressure gradient reaching out to what we might call throughout the drainage area of the well. There is a pressure gradient. That means there is a release of both gas and vapor from the liquid. When the well is shut in, the area of drainage or the drainage volume has a decreased pressure in it which has to be equalized. That pressure is equalized largely by a continued release of both gas and vapor from the liquid, and the release of that gas and vapor, which would otherwise have remained there and kept the liquid in a state that it would flow relatively faster, is the cause of the loss in his judgment.

The witness, after having shown a wide and thorough research into the Oklahoma City field conditions, states on page 1001 "it indicates clearly a very rapid rate of decline in the rate of production of the average producing well in the field." He says it indicates a material waste [fol. 310] or loss of otherwise recoverable oil and gas. He says the average decline of the average well from Dec. 30, 1929 to July 28, 1930 was from 9,323 barrels to 1,403 barrels which is abnormal and was caused in his opinion by improper completion and operation.

At page 1038 of the record, the witness states that he is convinced there would be a larger ultimate recovery of oil if there were a pinched-in flow rather than an intermittent. He states his opinion at page 1048 on the effect of the proration method of producing oil in the Oklahoma City field to be that the producing properties have been injured in that they will never yield the ultimate that they would have yielded. He says "my understanding of waste would indicate that it constitutes waste".

The witness states at page 1054 that they ran oil to earthen storage in the early days because they didn't know the results and it was sold on a different basis. He testifies that oil was run to earthen storage in the Smackover field in Arkansas.

At page 1057 the same witness states there would be from 1,500 to 3,000 barrels more per acre recovered if the wells were properly completed and properly operated. About one half of the loss is due to improper operation "under proration". At page 1090 the witness states that if one man were allowed to flow his well wide open and others

were required to keep theirs closed on account of marketing conditions there would be a disproportionate taking and a loss in ultimate recovery under the same conditions which would constitute underground waste. He states the same thing again at page 1095.

[fol. 311] Mr. Hoseman says at page 1104 that he has never heard of any one who purports to open up wide the wells in the Oklahoma City field, nor of any waste being committed in other fields, nor of any limitation in the transportation facilities. He states further that he knows of no reason why production in other fields should be lessened or restricted, nor of any reason why any good would be accomplished by such a proration order.

The witness states again at page 1122 that he has never heard of any one who has insisted upon or advocated a wide open flow in the Oklahoma City field except loose talk.

At page 1146, Mr. CHARLES W. WILKEY says that the experience he has found from association with men that have been dealing in the oil game for 25 years or longer is that a well that has been shut off will cause the well to decrease in production. He says further at page 1151 that shutting down the wells caused a material decrease in production.

Mr. J. L. McWILLIAMS testifying at page 1175 states that he does not think the operation of the proration orders has caused a decrease in the ultimate recovery of the pool. He states that with higher overall pressure it is logical to assume that it would produce more oil from the field as a whole than it would if we had no proration orders.

The same witness states at page 1180 that the head of gas which has accumulated while the well is shut in and must blow off before any oil can be produced causes a loss of oil—which is lost as far as the oil production is concerned.

[fol. 312] Mr. McWilliams states at page 1194 that the production would have had a higher recovery under the pinched-in flow than under the intermittent time flow which would be relatively true in the future. Again at page 1200 he says that on account of the intermittent flow method in operating those wells there has been a considerable loss in ultimate recovery. He states at page 1206 that if you wanted to get the largest percentage of ultimate recovery

from the wells you would take into consideration the different conditions existing in and about the well and then govern your operations accordingly; as far as he knows none of the wells did run wide open.

The witness states at page 1207 that if the Oklahoma City field were allowed to flow wide open in his judgment it would cause underground waste to occur; market conditions would cause underground waste if the wells were wide open and an operator could not dispose of all of his production in the ordinary channels of commerce.

McWilliams testifies that he was in the Smackover field (p. 1208) and that there was a very big loss there (p. 1209), that the tanks were made of sand, they would wash out and absorb lots of oil. Earthen storage was used generally and conditions were such that there was a very high percentage of loss that took place about 1924 or 1925.

The witness states, at page 1212, that future underground waste could be eliminated by casing the well properly, pinching the well and proration. He says they might [fol. 313] stream some of it off into the Mississippi river which would entail a loss and that to open this field (Okla. City) up would cause a terrific underground waste. He states at page 1213 that if "we" get 25% of our oil in the Oklahoma City pool we will do well while in Seminole they think they have gotten 40% of the recoverable oil. Again at page 1216 he testifies further that they will do well to get 25% of the oil and therefore we waste 75% of the energy and that is really only a small proportion of that 75%, a part of the energy can be saved by putting it on a percentage run rather than on an intermittent flow.

Mr. Charles Jacobson testifying at page 1223 states that the company he is connected with, Barnsdall, operates in the Osage and Seminole pools; that they have 93 wells in that locality and that there is no waste of crude oil in the way they are handling them; and at page 1224 he says they can control the wells so there will be no waste.

At page 1225 the same witness states that they are using no earthen storage and does not know that they have ever used any and that he knows of none being used in the Osage or Seminole field. He says further that he knows of no one "that is so operating a well to cause physical waste," nor of any operators who are operating in a way not modern and

up to date in handling crude oil. He says he can cite this Commission that no waste is occurring that ought to have its attention, and that that is true in the Osage Nation.

Mr. Champlin testifying at page 1235 says there was no waste in connection with the flush production in the Garber [fol. 314] field. He says at page 1237 that they didn't open their wells up and let it run out on the ground because they did not want to waste it, that they have better sense. He says "I don't think they would any more open up their crude and let it flow out than they would open up their picket book and throw their money away." He states at page 1238 that proration in the Barber field would not in any way tend to reduce the waste of crude oil nor tend toward conservation, having in mind the ultimate recovery.

The witness states at page 1245 that as far as his experience and observation goes in the Seminole pool there is no waste of crude oil over there in any way. At page 1263 he says he knows of no waste of crude oil being committed in the Oklahoma City field nor of any waste being committed in connection with the production of crude oil anywhere in the State of Oklahoma. At page 1264 he says shutting in a well is very injurious; that wells are sometimes destroyed or lost by shutting them in and keeping them shut in.

Mr. Champlin says at page 1270 speaking of the Deaver pool that it can be produced at 100% of its possible production without waste.

At page 1291 the witness states that he has heard of earthen storage but not lately, not in his time; that he doesn't think any body would put it in earthen storage. He states at page 1292 that he has seen oil in earthen storage in the Beggs field but that was caused by a well coming in for a large amount and they were unable to take care of it so they temporarily put it in earthen storage and withdrew it as soon as they could get a pipe line into the field. He says he doesn't think that would be done in this field (Okla. City); 10 or 15 years ago they were not as well equipped to [fol. 315] take care of producing wells as they are now; they didn't have control gates and often wells were brought in for a big production when they were not expecting it and the oil would go to waste.

The witness states at pages 1301-2 that he is in favor of producing the wells wide open; that he thinks that is an economic way to produce oil and will not result in under-

ground or surface waste; that there can be no underground waste. He says at page 1314 that he wants to commit no waste of crude oil and will not; that if a person did not have the market or could not sell his oil he would shut it in; that they don't have to waste it.

Mr. WILLIAM H. ATKINSON testifying at page 1341 says that in his opinion shutting in the wells under the time plan does not injuriously affect the wells, that is the sand wells in the Oklahoma City field; some wells might be making water and it would hurt them and that in certain conditions it would pour water in and hurt the other fellow; it would pull the water in and in time affect the whole field, particularly the north end where he is interested (P. 1342).

Mr. JOHN FULLER testifying at page 1347 says "beaming down the well—and this is general in every sand in the field, additional back pressure on the well increasing the gas-oil ratio would thereby reduce the ultimate recovery"; again at page 1351 he says "for the purpose of the largest ultimate recovery, I believe that intermittent flowing is better than pinched in."

Mr. WILLIAM H. ATKINSON testifying at page 1357 says if the proration were lifted he would probably run to open tanks, earthen storage, closed storage, or anything else he could get; at page 1358 he says he doesn't know of anyone doing that now—because they prorate it; in the fields that [fol. 316] are not prorated nobody is letting their oil run to waste but with the Oklahoma City potential they would.

Mr. C. C. CARLISLE testifying at page 1385 says he has seen indications of opening up wells and letting them run out on the pra-rie down the streams, or into earthen storage but not recently; that the Prairie Oil & Gas Co. does not do that intentionally; that improved methods have been developed to prevent a wasteful flood of oil; sometimes they cannot control them but they do as soon as possible.

In the testimony before the Corporation Commission in Case No. 10,326-13 relative to amending order No. 5292 so as to shut down the Oklahoma City field until those wells which are under-produced catch up with those that are even the references to waste will be found on page 115 where Mr. Franklin testified that to force the operators to

take any price for oil would result in great economic and actual waste; and on page 202 where Mr. Smith testified that to shut the wells in for a period of from 60 to 120 days would injure them materially, that is that the eventual recovery of oil would not be as great as it would otherwise so that instead of preventing waste it would result in actual underground waste; and at page 206 where the same witness says that the wells which they compel to shut in will be materially damaged, and again at page 214 he says "in my opinion, proration has injured the field;" and at page 220 that the proration orders shutting in these wells at various times has materially damaged the wells which has caused a material loss of oil that cannot be receovered.

[fol. 317] The Office of the Attorney General of the State of Oklahoma, Oklahoma City

January 23, 1931.

Hon. John H. Cotteral, Judge U. S. Circuit Court of Appeals, Tenth Circuit, Guthrie, Oklahoma.

In re Proration cases # 1156, #1173, #1175, #1176, and #1183, Equity, U. S. District Court for the Western District of Okla.

Dear Sir: There is herewith transmitted a copy of the counter abstract of evidence as to waste, submitted on behalf of the Corporation Commission of Oklahoma, defendant in the above numbered cases, the original of which was filed on yesterday in the case of Champlin Refining Company vs. Corporation Commission of Oklahoma, No. 1156 in Equity.

Similar copies of the above mentioned abstract are today being transmitted by mail to Judges Williams and Kennamer, and also to counsel representing complainants in the above numbered cases.

Very truly yours, for the Attorney General, Jesse L. Ballard, Assistant Attorney General.

JLB:AC,
gl,
Encl.

[fol. 318] IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF OKLAHOMA

In re Proration Cases No. 1156, No. 1173, No. 1175, No. 1176, and No. 1183. Equity

CHAMPLIN REFINING COMPANY, Complainant in No. 1156; Marco Oil & Royalty Corporation, Complainants in No. 1173; Century Petroleum Corporation, Complainant in No. 1175; Oils Inc., Complainant in No. 1176, and Capitol Producing & Refining Company, Complainant in No. 1183,

VS.

CORPORATION COMMISSION et al., Defendants

COUNTER-ABSTRACT OF EVIDENCE AS TO WASTE SUBMITTED BY DEFENDANTS

The defendants do not agree that the Abstract submitted by the complainants in the above entitled cause contains all of the evidence nor an abstract of all of the evidence submitted before the Corporation Commission upon the hearings held prior to the entering of the various orders of which complaint is made in the above entitled cause in this Court. The defendants do submit that the abstract of evidence submitted by the complainants on its face shows that there was ample evidence before the Corporation Commission to show that the commission of physical waste both under ground and above ground was imminent in the event that the production of oil in Oklahoma was not controlled by the Corporation Commission and Proration Orders of the Commission.

[fol. 319] The Defendants further submit that although there was no testimony as to any present wide spread physical waste above ground, that the testimony also shows that prior to the enactment of the conservation laws there had been such physical waste above ground and that since the enactment of those laws such waste had been consistently prevented by conservation and proration orders of the Oklahoma Corporation Commission.

Defendants further submit that it was not necessary for the Corporation Commission, to find that there was at the time of the hearings or the making of the orders actual

physical waste above ground in order for such orders to be lawful, but that the power of the Corporation Commission extends as well to the prevention of waste which would occur were the orders not promulgated as to the prevention of waste which had already or was then occurring.

Understanding that the Court's request for an abstract of the evidence was addressed solely to the question of whether or not evidence had been introduced before the Commission justifying a reasonable apprehension as to physical waste if the order were not made, the defendants submitted the following in addition and supplemental to, and, in some cases, in contradiction to the abstract submitted by plaintiffs:

(Defendants-appellees' controverting abstract of the testimony taken before the Corporation Commission as to waste, as filed in this Court, was in a large part in the exact words of the witnesses; and is here by agreement reduced to narrative form, by the Defendants-appellees and so narrated as follows:)

[fol. 320] RAY M. COLLINS testified on direct examination that he had production in the Cushing pool and other new pools where there was an overproduction and at that time they let it go down the creek saying, "we could not take care of it; and our neighbors were running theirs through the pipe line;" that if there were no steel or wooden storage, or appreciable amount thereof to store oil permitted to be produced, it is a necessary result that oil must either go into earthen storage or be entirely wasted; that in earthen storage there may occur a loss of anywhere from 50 to 90% due to evaporation, absorption or washing.

On cross examination, beginning at page 100, the same witness testified that there is no waste going on in Oklahoma now whether the field is prorated or not; and that everything is running satisfactorily in Oklahoma now; that he wants to prevent actual waste which he says on page 101 is opening up a well and letting it go down into the ground; on page 103, that he wants proration to prevent actual waste for one thing and on page 104, that he would want a rule to prevent waste besides (a rule or order by the Corporation Commission stopping the tremendous drilling campaign in the Oklahoma City field). On page 110 he testifies

that he wants proration to prevent physical waste and to prevent one neighbor taking more oil out of it than his proportion. On page 111 Collins testifies in answer to the proposition and question: "If you take oil out from under me, I am going to run my well wide open. That is not physical waste, is it?" "That if I let it go down the creek it will be." He further says that he cannot name a producer in this field that opens his well and lets the oil run down the creek at the present time or in the last 5 years.

On page 112, he testified that if you lift proration there will be actual waste, for the reason that a man who has no pipe line facilities or cannot sell his oil will let it go down the creek; that he doesn't know of any oil being stored in earthen storage and that he hasn't known of any since about the Cushing field days which he says was about 15 or 16 years ago (page 114).

[fol. 321] On page 115 in answer to the proposition presented where a man owns his own well, pipe line, refinery and marketing facilities for the finished product and the question as to what harm there would be in letting him run to full capacity that "as a matter of waste, if I had an offset well and you opened your well and I was not able to take care of mine, I certainly would build earthen storage and try to take care of it in that way." On page 116 he testifies that his only reason is that it would be taking more oil from his neighbor than what he considers to be a due proportion.

At page 178 Collins testifies that they intended to include the Osage reservation in the proration orders, and at page 180 that he doesn't believe there is imminent danger of waste being committed there; and further that prior to the time he made this application he did not ascertain whether there was any waste in those fields other than the ones heretofore prorated. He testifies also at page 180 that in his judgment there are many areas, many wells, many leases which will have to be given special attention by the Commission to prevent actual waste by reason of this order; that is wells making water and wells that have no gas pressure to speak of and others that are poorly equipped, if this order is forced on them and given strict enforcement, that will be positively injured rather than benefited.

At page 181 he says that if the little wells producing from 5 to 25 barrels per day which the contemplated order places under proration were permitted to run 100% waste would be imminent in those fields; that the waste would occur by the fact that this purchasing power has been transferred to Oklahoma City, and they would not be able to take care of it. At page 183 he states (referring to fields of small production) that there has been no waste in the past.

At page 201 Collins says that his statement that there is no waste and has been no substantial waste in the State of [fol. 322] Oklahoma is due to the fact of these very proration orders that have been issued in the past.

At page 215 Collins in answer to a hypothetical question "supposing the I. T. I. O. Co. had a demand for 100,000 barrels of oil per day at 50 cents per barrel which they wanted to sell and the other producers wouldn't take that for their oil, if it would be waste for the Commission to let them sell it" testifies that it would be waste (pages 216-217). At page 218 he says his reason is that the other fellows would have to run the oil into earthen storage. He states further that if they could show their was actual demand and no waste he would certainly recommend it.

At page 223 Mr. Collins testified that "we" did not take into consideration the financial ability of a correlative owner to drill a well; that as long as he (a correlative owner) took ratably as the common pool was prorated, there would be no waste. He says that he wouldn't try to protect any correlative owner of the common supply because he hasn't got a well on his lease (p. 224).

At page 252 Mr. Victor H. Smith testified that his company has one well in the Oklahoma City pool and that they can handle a percentage of the production from that well without any waste occurring in connecting with it, but not all the potential which was rated as 150,000 barrels per day based on some two hours' gauge; that they could handle possibly 30,000 or 40,000 barrels per day through their plant and other facilities without waste, except perhaps waste of gas; that if they should find it would produce more than they could handle it would be operated so as to commit no waste of oil (p. 253).

At pages 270 and 271 Mr. Smith testified that if the Oklahoma City field was opened up and no limit placed on production all the little refineries in the state would open up and "the first thing you know we would have 3-cent gasoline," but there wouldn't be any waste in connection with 3-cent gasoline because "we would get a lot more airplanes."

[fol. 323] At page 273 Mr. Smith testified that if oil were to do down in price to 50 cents the big companies would build tanks to put it in and that there would be a waste in connection with the storage of oil in steel or earthen tanks. At page 275 Smith says he doesn't believe there would be any waste of oil if the Commission should set aside its order and turn everybody loose in the Oklahoma City pool, unless the producers would be foolish enough to try to put light oil in earthen storage. In answer to the question: "Isn's it a fact that in every flush field that we have had in Oklahoma w-ere we didn't have proration they have put it in earthen storage?" he says: "I wouldn't say so on light oil." Upon being asked if they didn't do it in Cushing he replied, "Yes, if you go 'way back in the old days. They didn't have anything else to do with it." He says they did that at Smackover but not on light oil. He states there is waste on heavy oil in earthen storage but not as much as on the light (p. 726). The small producer would take the crude as far as his facilities would permit and without waste. If the larger producer cannot ship all of his oil out he will keep his wells shut in until he can increase his facilities so as to handle more (p. 277).

Mr. Dye, testifying, at page 300, says that to shut in wells entails waste of oil because "if you shut in a well you never get the maximum production back in some cases." The witness further testifies at page 304 that he has been engaged in the oil business since 1916 and that they have never had any waste; that he doesn't know of any waste in the production or handling of crude oil anywhere and that the question of waste is not bothering anybody at this time as far as he knows.

At page 308 the following question was asked: "In your judgment, if proration orders were lifted by the Commission in that field (Oklahoma City) and that field was opened

up, would there be any waste of crude oil or would there be any taking out of proration by one operator of a well as against another?"

[fol. 324] The witness, Dye, replied: "There would be a discrepancy in the taking of oil; but I doubt whether anybody would allow the oil to flow down the creek. They would probably keep their wells shut in if they couldn't sell it." At page 309 he says it is problematical as to whether there would be any waste of crude if the lid were taken off and that field were opened wide up; it would depend, necessarily, upon how the operators in the field would work.

At page 328 Mr. Dye testifies, relative to waste, that if all the producing companies that have manufacturing and marketing facilities would take the position that they were going only to produce and manufacture their own products it would cause a lot of waste and abandonment of old wells if they continue to drill the way they have been.

Mr. E. B. Reeser, testifying, at page 333, states that if production were in excess of reasonable market demand the condition of waste would follow. At page 334 he says by physical waste he means that "whenever you produce oil in excess of the demand it either goes into earthen storage or tanks; or down the streams or water courses, and in either event loss results." He says he doesn't know of anybody in Oklahoma today that is running oil into streams, nor of anybody that is putting it in earthen storage, or of anybody that has in Oklahoma within the last 10 years. To the question: "Then there is no running down the streams nor putting in earthen storage, so your idea, so far as Oklahoma is concerned, Oklahoma is not now suffering an economic waste?" he replied: "No; I am talking about what would result if more than the market demand were produced." He states again at page 335 that there is none run down the streams but that physical waste would result if a volume greater than the market demand were produced; that would result if put in steel storage by evaporation. At page 338 he states he doesn't want an over-supply because it would produce waste by placing it in steel tanks; and in that event you would have an added waste of *of* the cost of producing your tankage, and then the evaporating losses. He says: they should be required to stop storing oil in steel tanks [fol. 325] because that would stop waste by steel tankage.

Mr. Reeser testifying at page 391 says that if there were not restrictions of production there would be actual waste; that waste has been prevented by the orders of this Commission from time to time; that prior to the time we had the law under which we are now operating there were conditions of actual waste in times of overproduction; that there was earthen storage in Oklahoma; that there was waste and that there was oil going down the creeks.

Mr. C. C. HERNDON, testifying, at page 403, says that in his judgment if there were not a proration order in effect, or if one were not continued in effect, there would be actual waste of crude oil in the State of Oklahoma; that he considers such waste imminent if no such order were made; that the potential production of crude oil in the State of Oklahoma is in excess of the reasonable market demand for it. At page 429 the same witness states: "Where the potential production of big flush wells in the aggregate largely exceeds the reasonable market demand, then to permit one man, because he happens to be equipped with these things, to operate his wells to capacity or above the level that can be maintained by others, either induces waste on the part of the others or causes the loss of other oil to the other man, which in turn leads back to waste, because under those circumstances men protect themselves in the best way they can."

Mr. Herndon testifying at page 437 says he knows of no wells in the Stephens County field where the oil is being wasted and at page 439 he says that up to this time there is nothing wrong with the way the oil has been handled in Stephens County, but there will be something wrong if they are not brought under this proration order because there will be a transference of purchasing power to Oklahoma City.

At page 441 he testifies that in figuring on cutting down the production in Stephens County as keeping it cut down and preventing further development by test wells that is now in effect under the proration order they have not considered the welfare of the producer of oil but rather the [fol. 326] alleviation of waste in this state during this time of overproduction. He says at page 442 that he is not assuming that the producer in Stephens County has committed any waste but he thinks he will within the meaning of the

statute. He doesn't know where in Stephens County any man has committed waste in any sense but that it is imminent; that waste will occur. That it will be done by production of oil in excess of the market demand for it. If the Stephens County people increase their production 500 barrels per day that will constitute waste, if there is no market demand for it. If there is a market demand for it, it will not.

At pages 455-456, Mr. Herndon answers the question: "You would not waste any of your oil, would you?" with the reply, "I dare say we would."

Mr. A. V. HOENIG, testifying, at page 466, says he doesn't believe the full production of the Oklahoma City field could be produced without waste and that in his judgment the continuance of some sort of a proration order is necessary to prevent waste in the field; and at page 467 that to produce this field without restriction or proration would result in a very material waste of oil and gas.

Mr. OTTO BRADFORD, testifying, at page 531, says that in his judgment the Oklahoma City field could not be produced at its maximum production without physical waste for there is no way for a good part of the oil, at present, to be handled; that if the wells were all producing he thinks it would necessarily result in earthen storage or actual escape down the streams; at page 532 he says that he knows of no demand here for purchasing oil to be put in storage.

At page 533 he states that it is his opinion if they were to open up all the wells in the Oklahoma City field they would put it in earthen storage; but that they could keep their wells shut in if they would. At page 534 he says he knows of no big oil company who now stores oil in earthen storage because there is no need of it, nor of any producer of oil that runs it down the creek—that that is a past matter of many years ago.

[fol. 327] At page 536 Mr. Bradford was questioned as follows: "Assuming that testimony to be true, and assuming that there is a refinery in this city with an outlet running into this field and has its own production in this field and it takes that production and runs it to its own pipe

line, refines it in his own refinery and markets it th-ough its own marketing facilities, in the usual and ordinary way that refining business is carried on, wherein would there be any waste in such a transaction?" He answers: "There probably would not be any waste in the operation of that particular one well if the offset wells would remain shut it." He states this man's activities would not be waste but that it would probably result in waste. It would result in waste because if he had the offset well he would run it the same way—to the pipe line, tank cars or turn it loose. He says if he could not sell it he would let it run down the creek.

At pages 540-541, the same witness testifies that to open the field up would necessitate the use of earthen storage; that there is not enough available storage to take care of it though they could probably have built tanks along from time to time so as to have had plenty of facilities for taking care of it.

At page 547 the witness testified that some wells have gone dead but that he is not a production man and does not know the cause. These wells were all in the lime production. Water swallows them quickly.

Beginning at page 555 and continuing through page 557, Mr. Otto Bradford testified that he was acquainted with the Healdton field in the days of its glory in which a situation was created (which approximately gave rise to the present law), where the thousands of barrels of oil were put in earthen storage, plus that which ran down the creeks from which there was enormous wastage involved by evaporation, seepage and running down the creek; but the numerous skimming plants erected on the creeks did not in any way recover all the oil that went down the creeks; that he did not know the per cent of earthen [fol. 328] storage but that he knew of several earthen storage tanks that were built; that these storage tanks retained some of the oil but that some was lost by seepage, and quite a little was lost by excessive rains which would soften the dams and they would go out. This was not due alone to the fact that the production was more than the market demand but that the only pipe line in the field, Magnolia, could not possibly take care of all the production. They ran their own and a little besides so the other fellows produced any way they could to hold it. At page

559 he says all this took place about 1914 and at page 560 he says this field produced low gravity oil and that the higher the gravity the more the evaporation.

At pages 568-571, Mr. J. R. TRAVIS of Duncan, refiner, pipe line owner with refinery connected with 195 wells and with many years in the business, qualified as an expert. He states he was in the Cushing field; that there was no oil went into earthen storage during the Cushing boom, there was some that went down the creek which occurred when they were bringing in the wells and did not shut them in properly or occurred when they were swabbing the wells after the gas pressure went off and the big waste occurred in 1913 and early part of 1914, and in 1915 or January, 1916, the waste had ceased. He purchased oil in the Burnett field, Cotton County field, Stephens County field, Oklahoma City field and has been out there many times, and said, "I have never known of any deliberate waste where they wasted it purposely, never in the history of my experience in the oil business." In the Cushing field oil was wasted on account of the equipment not being right to hold it. They put it in wooden tanks and they leaked and were not well fixed to take care of the oil. They drilled a lot of those wells there without even having a mastergate, but under the improved modern methods producers are equipped with steel tanks. There are no wooden tanks any more, all tanks are steel and no earthen tanks for storage that he knew of. He says we hear nothing of that kind any more. The various ways that crude oil in the [fol. 329] process of production can be wasted, or if when bringing in the well they are not properly equipped in case of swabbing and when they are shooting wells all those conditions will exist whether there is a proration order or not, and the proration orders pretend to have nothing to do with the bringing in of the wells or the control of the drilling. "With our modern methods of handling I think there would be no waste to amount to anything unless it might be in the shooting of the well," but the proration order has nothing to do with that and the witness knows of no other kind of waste that occurred in connection with the production of crude oil. He has been in the business about 30 years.

At pages 584-585, Mr. Travis states that there would be no waste if he were permitted to take his oil out, run it through his pipe line and into his refinery; that the only waste he could see would be a reduction in price, that he doesn't know of waste now such as it has been defined by the various witnesses. Again at page 587 he testified that he has his own pipe line and marketing facilities and that absolutely no waste occurs in connection with the handling of it.

The said witness testifies at page 589 that you can't shut a well in without hurting it. He says, "You have no business drilling that sand. If you leave the drill out of the sand you won't hurt the sand, but once you drill it you had better produce it." At page 590 he adds, "Because it goes somewhere. I don't know where it goes. The water comes in on it, and if the water wouldn't come in on it the gas goes somewhere; the gas gets away from you." He states the only remedy for overproduction is the cessation of drilling.

Mr. Travis testifying at page 604 says the situation will take care of itself if let alone and there will be no waste. The Corporation Commission or the farmer will not let you run it down the creek. He has never known of any going down the creek maliciously or any other way in the last 15 years. Sometimes they will let a well get away from them (p. 605). He says, there has been no oil wasted and there would be no oil wasted unless it happened like a wild well out here of the I. T. I. O. that got away from [fol. 330] them. There has been more oil wasted, I expect, in this field than any other field in the state in the last 10 years which he says is even under proration and none of it done on purpose for that would happen whether there were proration orders or not.

The same witness testifying at page 629 states he is tied onto 195 wells in the Stephens County district; "there is not a well that I am tied onto, with the exception of one, that it wouldn't ruin it to be shut down." At page 630 he says, "I have always been told and thought that we must not shut them in. I have had a producer come to me at 2 o'clock in the morning and get me out of bed so I could run his oil, if I didn't he was going to have to close the well in and ruin

it. I have heard nothing contrary until the last year or two."

In reply to the question as to what would be the effect on a well of shutting it in for a certain number of days under the proration order the witness says that "all the wells that I have ever had any experience with the water either came in or the sand paraffined up. If the water comes in it is hard to ever get it off the sand. If it paraffines up you might shoot it and get it off the sand." As to the effect on the ultimate recovery of a pool like that at Oklahoma City of shutting in the wells that it would hurt them if allowed to flow wide open but to pinch them in and let them flow some all the while would help the wells.

At pages 659 and 660, Mr. Travis on cross examination testifies that there are some oils you can't waste by putting it in earthen storage but most Oklahoma oil would be wasted if put in earthen storage. If put in tight steel storage he knows of no waste that would occur. There is some initial loss by evaporation. He stored some in Stephens County 10 years ago and there is probably a 2% waste there. He says at page 663 that it would be a crime to put Oklahoma crude in earthen storage outside of a little heavy asphalt base crude but that he doesn't know of any earthen storage in recent years. He states there would be a small loss if put in steel storage and left for any appreciable time. He doesn't know anything about the Smackover field or of [fol. 331] earthen storage used there.

The same witness at pages 671-673 says he is not favorable to any kind of storage except in cases of emergency like we have now; that oil is a lot better out of the ground in storage than it is in the ground mixed up with salt water, if you tap a field you ought to go ahead and operate—that it is better to take it out after it has been tapped; that the loss would not be near as much by storing it than it would if you leave it in the ground after the field has been tapped like this one. At page 672 he says that if your storage is tight, the ordinary Oklahoma crude will probable lose from 1 to 3% over a year and then it won't lose any more; that there is some loss in handling high gravity crude or gasoline any way you handle it whether you have proration or not and tanks are strapped 3% short to cover that whether they run it immediately to the refinery or not. He states at page 674 that he knows there is 100,000 barrels of $3.00 or $2.70

oil stored in the Duncan field and that it has been there over 9 years.

Mr. A. V. Boswell, after stating that he has been connected with the oil business 30 years as a hydraulic, petroleum and mining engineer, says he has had experience at Bartlesville, Kiefer, Glenpool, Ardmore and Oklahoma City. He says at page 711 that his experience has been in the drilling in of any wells that he has operated in, as long as you keep those wells flowing and allow them to flow freely, you are going to get a full production, but when you close a well in, either completely or partially, you are going to ruin, to some extent, the production of oil from that well. He says we have tried it several times, at least in 5 fields in Oklahoma and that has been his uniform experience without any exception.

He says at page 712 that it has always been the individual engineer's judgment upon which they all agree, as far as he knows, that it is injurious to a well to shut it in. There are three ways it is injurious to a well to shut it in. You might kill the well altogether with water. If it has a parafin base, those little crevices where the oil and gas comes from might become what we call leaded up, or closed up by the [fol. 332] parafin, or the substance we call parafin. If it is asphaltum base the same thing applies. Those wells are going to be injured. That has been our advice as long as I can remember, even back in the Pittsburgh field in Pennsylvania. Confining it directly to the Oklahoma City field, the condition of the sand on the west side of the field would perhaps not injure a well quite as much as on the east side where it is a lime formation. I would consider the well would be ruined if shut in 65 days.

The witness says at page 713 that the history of the wells is that when you reach the lime formation you are much more liable to get salt water than you are in the sand formation. In Oklahoma City those that have been shut in when opened again have not produced like they did when they were closed in. There has been more wells on the east side of the field that have decreased in production so that actual experience bears out the theory. He says shutting in these wells will have no tendency to conserve the oil, either for the use of future generations or for any other time. The losses from closing those wells would be so much

more than the losses would be from the development of the wells so that in his opinion the shutting in of the wells causes waste rather than conservation; after the sands have been penetrated, it is much better to keep them open. These things are just as well known as the multiplication table. He says, "We fellows who have observed those things and examined them have found that is true in every instance. He states this was true in Bartlesville, Glenpool and Ardmore.

At page 715 he says that when a field comes in there is always flush production caused by gas rock pressure, and gas pressure which is larger in the beginning and later recedes; if the wells are permitted to produce it keeps all the avenues open. He states at page 718 that he has observed the Hall-Briscoe Well No. 1 which came in at 25,570 barrels and the flow was retarded by being closed in so that they are now able to get only 18,000 barrels; and on page 719 he says shutting in the well was what injured it.

[fol. 333] At page 722 the same witness testified that he doesn't think there is any wastage of oil in this field at all; that he has never seen any; that the proration orders have not cut down actual physical waste.

The witness states at page 723 that when there is actual physical waste that is the fault of the one who owns the particular well which is governed by statute. He says there is no reason why one should be penalized when he is not committing waste because some one is committing waste; there could be no erroneous waste in connection with the operation of this field if it were permitted to run wide open. At page 724 the witness says any producer should be sent to the asylum if he opened up his wells and let it run wild out into the field.

Mr. Boswell states at page 735 that when you cut off the production you are going to hurt the wells, and when you hurt the wells you are creating a waste right there; you are wasting your own substance. Again at page 738 he says shutting in the wells to 25% would cause a waste and loss; by restriction as it is we will have ruined wells; again at page 739 he says it would injure the wells to shut them in to 25%. At page 740 he says the better way is to let it flow unrestrained if you want to get the full value; that it is better to let it run steadily.

At page 741 the following question was asked:

"Now, for the first time in this proceeding, I would like to ask you this: Having solely in mind the advantage of the people of the State of Oklahoma, and we will say the future generation of the people of the State of Oklahoma, as influenced or affected by our great natural resources, crude oil, which is the better way to conserve those interests, to let these wells run freely, except as restrained from physical causes, or to have them run under proration orders as they are now being run?

A. Well, the former, I should say, would be very much better.

Q. Now, why?

A. Because if you want to adjust this matter and get the oil that is already developed, you have got to let it run unrestrained. Now that is going to run the price of oil down some, and when you do that, that is going to stop the fellows in the wildcat field, and there is the only place it can be [fol. 334] regulated, because when you drill into an area or into a triangle like this and start development, you cannot stop that oil from flowing. If you do you are just as liable to ruin your well as you are if you drop something in it and ruin it."

At page 742 he says he thinks it would be better for the consuming public and also better for the State of Oklahoma as a state and an entity that these wells should be permitted to run open continuously, in the meantime restraining actual physical waste. At page 769 he states that he thinks the proration orders have increased waste by reducing the ultimate output of the well.

The same witness testified at page 777 that he doesn't think there would be any waste of oil at all if you opened the Oklahoma City field wide open; it would go to markets and storage. At page 779 he says the average loss in storage is about 2% in steel tanks which you have lost but if you shut in a well you are going to lose 25 to 30%, maybe 50%, maybe all of it. He testified at page 780 that he doesn't know of flush fields running oil down the creek; that wells got away at Cushing and Healdton just as the Mary Sudik at Oklahoma City and some oil was lost; that was an accident. At page 781 he says there is nobody that is putting oil in earthen tanks now and he knows of nobody who would if they opened this thing up; producers in no

state whether they have proration or not are going to put it in earthen tanks.

Mr. JAKE HAMON, testifying, at page 810, makes the statement, "If this proration plan is put into effect we believe that it will save our wells from waste; if not, economic waste will certainly be obtained, because the small producer cannot afford to build steel tankage for his oil. The cost of the average tank for the average small production is prohibitive. Our production will be wasted.

Beginning at page 813, Mr. L. C. HIVICK says with reference to the waste of crude oil in the last 10 years in production or marketing that "the new equipment has cut out considerable, cut out, I might say, seven-eighths of the waste of oil to what it was in the early days, such as control heads and gate valves, Christmas trees, and different [fol. 335] ways of equipping them up. They have now all steel tanks, and we used to have all wood and they were leaking.

At page 810 he says if the proration orders were lifted, there would be no more waste than there is now. Proration orders do not affect waste. He states again, at pages 818-819, that he does not think lifting proration orders will have any effect upon the matter of wasting of oil. He says he couldn't see where it would waste any more to lift the proration orders unless the man was just an outlaw and violated the orders that now and always have been here to preserve the state's resources.

The same witness states at page 823 that he doesn't think they would open up the wells and let it run out on the prairie if the quantity taken out was greater than the shipping facilities; he says he never heard of it in Cushing or Seminole and he was in all of them; the only cases of that kind would be where the wells got away. He says they have not had proper equipment up until late years and some oil would be wasted until they could "harness" up properly. There would be some oil run down the creeks from the sun heating against the wooden tanks.

The witness says at page 824 that it has always been conceded that it hurts a well to shut it in; in some ways shutting in a well has a tendency to create waste of crude oil; you would get more oil, a lot more, if you keep your well open. As a matter of conservation he states as long

as he could sell it he would let it run. At page 837 the witness states, "I don't think they are wasting any more oil here because they have proration, than they would if they did not have it."

Ed Trippett, testifying, at page 859, says, "as a general proposition I think that the closing in of wells will hurt them. Some cases it does not; more cases it does." Where the well is producing some water and the gas pressure is weak to shut it in would ruin it in course of time. He says he has seen wells that were good oil wells shut in that were not making any water and when they opened them up for at least three weeks they would not make any oil at all, [fol. 336] and others making both oil and water that never came back. Some were opened up in Oklahoma City that were not making any water and it did not seem to hurt them.

The same witness testifies at page 869 that if you want to conserve the natural resources of crude oil and prevent the waste thereof don't drill into it and if you have it would be better to get it out of these while you can; there is a certain amount of waste no matter how you handle oil.

Mr. Trippett states at page 873 that he thinks it hurts a well to shut it in if it is making any water at all. At page 874 he says he thinks the south wells in the Oklahoma City fields are making water. He states again at page 881 that he thinks there is more waste under proration than without because oil is left in the ground that can never be recovered.

The witness states on page 890 that if he owned a lease from which he could not dispose of his oil although his neighbors could he would leave his in the ground. At page 901 he say he can sell his full production without causing any waste of crude oil.

At page 921, Mr. William A. Springall, a representative of the M. K. T. Rd. Co., says if they were permitted to handle as much oil over their road as they might they could handle it without any waste of oil.

Mr. E. W. Jones, testifying, at page 915, says that it is not the desire of any operator in the Oklahoma City pool or any other pool in the State of Oklahoma to waste crude oil; we naturally would not waste it and if run to full

capacity there would be no waste; I would just produce and sell the amount of oil that I could sell; as a matter of business or enterprise and judgment, we would not permit it to be wasted, as a matter of economical waste we would not do it, or as a matter of physical waste we would not do it; every operator that is honest with himself will produce only the amount of oil that he can sell. At page 946 he states that he has heard a lot of them say that they [fol. 337] would produce it right on the ground but "I have been operating a long time, and I have never seen it done deliberately."

At page 949 Mr. Jones says that it has been the general opinion of operating companies in the oil business every field I have ever operated in, and I have operated in a number of them, that to shut in a well completely has been known to kill it entirely; neither I nor any other operator in the Oklahoma City field knows "what the effect is to shut it in;" he says: "I know of one well in Texas that came in for 25,000 barrels per day, they opened it to fill their tankage and shut it off for additional tankage, they shut it off and opened it, and it has never produced a barrel of oil to this day." He says the pinch in is the recognized, modern and better way to do it because it keeps the channels open to the well (R. 950).

Mr. Jones, at page 983, in answer to questions asked by Commissioner Capshaw, said "I operated in Seminole and Bowlegs and Little River, and all of the fields of recent flush production in Oklahoma, and I have not seen any wastage of oil since the days of Spindletop and Smackover and some of those big flush fields in Texas." And again at page 985 he states "I never did see any waste (referring to the Seminole fields). I drilled lots of wells there. So far as physical waste is concerned in Seminole and Little River and Earlsboro and all of those fields, I never saw physical waste there unless a well got wild, just like the Mary Sudik did." He states further that he had never heard, in his lifetime, of a man anywhere deliberately opening a well and running it on the ground and not trying to take care of the oil. He saw it run on the ground in earthen storage tanks and that was customary in Goose Creek and all through South Texas—they never figured that a waste. He said that would cause

a lot of it to go down the creeks when they had a big rain just like storms killing people when you didn't expect it to come.

Mr. W. P. HOSEMAN, testifying, at page 997, says that where the wells are opened intermittently there is a loss of from 10 to 20% which is not recoverable—that is, lost [fol. 338] forever. He figures (p. 998) that 10 to 20% more would be recovered under the pinched-in method. Shutting in after reaching the oil sand results in wastage over what would be recovered in oil if the well were permitted to flow steadily, even though on a percentage flow. The orders in force result in a direct waste of the available oil underlying the Oklahoma City field, which would be underground waste of 10 to 20%. He says, on page 999, that the cause of the recoverable oil being decreased when the well is shut in from time to time over and above the amount it would be if permitted to flow all of the time although pinched-in is due to the fact that there has been established a pressure gradient reaching out to what we might call throughout the drainage area of the well. There is a pressure gradient. That means there is a release of both gas and vapor from the liquid. When the well is shut in, the area of drainage or the drainage volume has a decreased pressure in it which has to be equalized. That pressure is equalized largely by a continued release of both gas and vapor from the liquid, and the release of that gas and vapor, which would otherwise have remained there and kept the liquid in a state that it would flow relatively faster, is the cause of the loss in his judgment.

The witness, after having shown a wide and thorough research into the Oklahoma City field conditions, states on page 1001, "it indicates clearly a very rapid rate of decline in the rate of production of the average producing well in the field." He says it indicates a material waste or loss otherwise recoverable of oil and gas. He says the average decline of the average wells from December 30, 1929, to July 28, 1930, was from 9,323 barrels to 1,403 barrels which is abnormal and was caused in his opinion by improper completion and operation.

At page 1038 of the record, the witness states that he is convinced there would be a larger ultimate recovery of oil if there were a pinched-in flow rather than an intermittent.

He states his opinion at page 1048 on the effect of the proration method of producing oil in the Oklahoma City field to be that the producing properties have been injured in that they will never yield the ultimate that they would [fol. 339] have yielded. He says "my understanding of waste would indicate that it constitutes waste."

The witness states at page 1054 that they ran oil to earthen storage in the early days because they didn't know the results and that it was sold on a different basis. He testifies that oil was run to earthen storage in the Smackover field in Arkansas.

At page 1057 the same witness states there would be from 1500 to 3000 barrels more per acre recovered if the wells were properly completed and properly operated. About one-half of the loss is due to improper operation "under proration." At page 1090 the witness states that if one man were allowed to flow his well wide open and others were required to keep theirs closed on account of marketing conditions there would be a disproportionate taking and a loss in ultimate recovery under the same conditions which would constitute underground waste. He states the same thing again at page 1095.

Mr. Hoseman says at page 1104 that he has never heard of anyone who purports to open up wide the wells in the Oklahoma City field, nor of any waste being committed in other fields, nor of any limitation of the transportation facilities. He states further that he knows of no reason why production in other fields should be lessened or restricted, nor of any reason why any good would be accomplished by such a proration order.

The witness states again at page 1122 that he has never heard of any one who has insisted upon or advocated a wide open flow in the Oklahoma City field except loose talk.

At page 1146, Mr. CHARLES W. WILKEY says that the experience he has found from association with men that have been dealing in the oil game for 25 years or longer is that a well that has been shut off will cause the well to decrease in production. He says further at page 1151 that shutting [fol. 340] down the wells caused a material decrease in production.

Mr. J. R. McWilliams, testifying, at page 1175, states that he does not think the operation of the proration orders has caused a decrease in the ultimate recovery of the pool. He states that with higher overall pressure it is logical to assume that it would produce more oil from the field as a whole than it would if we had no proration orders.

The same witness states at page 1180 that the head of the gas which has accumulated while the well is shut in and must blow off before any oil can be produced causes a loss of oil—which is lost as far as the oil production is concerned.

Mr. McWilliams states at page 1194 that the production would have had a higher recovery under the pinched-in flow than under the intermittent time flow which would be relatively true in the future. Again at page 1200 he says that on account of the intermittent flow method in operation — those well there has been a considerable loss in ultimate recovery. He states at page 1206 that if you wanted to get the largest percentage of ultimate recovery from the wells you would take into consideration the different conditions existing in and about the well and then govern your operations accordingly; as far as he knows none of the wells did run wide open.

The witness states at page 1207 that if the Oklahoma City field were allowed to flow wide open in his judgment it would cause underground waste to occur; market conditions would cause underground waste if the wells were wide open and an operator could not dispose of all of his production in the ordinary channels of commerce.

McWilliams testifies that he was in the Smackover field (p. 1208) and that there was a very big loss there (p. 1209), that the tanks were made of sand, they would wash out and absorb lots of oil. Earthen storage was used generally and conditions were such that there was a very high percentage of loss that took place about 1924 or 1925.

[fol. 341] The witness states, at page 1212, that future underground waste could be eliminated by casing the well properly, pinching the well and proration. He says they might stream some of it off into the Mississippi River which would entail a loss and that to open this field (Okla. City) up would cause a terrific underground waste. He states at page 1213 that if "we" get 25% of our oil in the Oklahoma City pool we will do well while in Seminole they think

they have gotten 40% of the recoverable oil. Again at page 1216 he testifies further that they will do well to get 25% of the oil and therefore we waste 75% of the energy and that is really only a small proportion of that 75%, a part of the energy can be saved by putting it on a percentage run rather than on an intermittent flow.

Mr. CHARLES JACOBSON, testifying, at page 1223, states that the company he is connected with, Barnsdall, operates in the Osage and Seminole pools; that they have 93 wells in that locality and that there is no waste of crude oil in the way they are handling them; and at page 1224 he says they can control the wells so there will be no waste.

At page 1225 the same witness states that they are using no earthen storage and does not know that they have ever used any and that he knows of none being used in the Osage or Seminole fields. He says further that he knows of no one "that is so operating a well to cause physical waste," nor of any operators who are operating in a way not modern and up to date in handling crude oil. He says he can cite this Commission that no waste is occurring that ought to have its attention, and that that is true in the Osage Nation.

Mr. CHAMPLIN, testifying, at page 1235, says there was no waste in connection with the flush production in the Garber field. He says at page 1237 that they didn't open their wells up and let it run out on the ground because they did not want to waste it, that they have better sense. He says, "I don't think they would any more open up their crude and let it flow out than they would open up their pocket book and throw their money away." He states at page 1238 that proration in the Garber field would not in any way tend to reduce the waste of crude oil nor tend [fol. 342] toward conservation, having in mind the ultimate recovery.

The witness states at page 1245 that as far as his experience and observation goes in the Seminole pool there is no waste of crude oil over there in any way. At page 1263 he says he knows of no waste of crude oil being committed in the Oklahoma City field nor any waste being committed in connection with the production of crude oil anywhere in the State of Oklahoma. At page 1264 he says shutting in a well is very injurious; that wells are sometimes destroyed or lost by shutting them in and keeping them shut in.

Mr. Champlin says at page 1270 speaking of the Deaver pool that it can be produced at 100% of its possible production without waste.

At page 1291 the witness states he has heard of earthen storage but not lately, not in his time; that he doesn't think anybody would put it in earthen storage. He states at page 1292 that he has seen oil in earthen storage in the Beggs field but that was caused by a well coming in for a large amount and they were unable to take care of it so they temporarily put it in earthen storage and withdraw it as soon as they could get a pipe line into the field. He says he doesn't think that would be done in this field (Okla. City); 10 or 15 years ago they were not as well equipped to take care of producing wells as they are now; they didn't have control gates and often wells were brought in for a big production when they were not expecting it and the oil would go to waste.

The witness states at pages 1301-1302 that he is in favor of producing the wells wide open; that he thinks that is an economic way to produce oil and will not result in underground or surface waste; that there can be no underground waste. He says at page 1314 that he wants to commit no waste of crude oil and will not; that if a person did not have the market or could not sell his oil he would shut it in; that they don't have to waste it.

[fol. 343] Mr. William H. Atkinson, testifying, at page 1341, says that in his opinion shutting in the wells under the time plan does not injuriously affect the wells, that is the sand wells in the Oklahoma City field; some wells might be making water and it would hurt them and that in certain conditions it would pour water in and hurt the other fellow; it would pull the water in and in time affect the whole field, particularly the north where he is interested (p. 1342).

Mr. John Fuller, testifying, at page 1347, says, "beaming down the well—and this is general in every sand in the field, additional back pressure on the well increasing the gas-oil ratio would thereby reduce the ultimate recover;" again at page 1351 he says, "for the purpose of the largest ultimate recovery, I believe that intermittent flowing is better than pinched in."

Mr. WILLIAM H. ATKINSON, testifying, at page 1357, says if the proration were lifted he would probably run to open tanks, earthen storage, closed storage, or anything else he could get; at page 1358 he says he doesn't know of any one doing that now—because they prorate it; in the fields that are not prorated nobody is letting their oil run to waste but with the Oklahoma City potential they would.

Mr. C. C. CARLISLE, testifying, at page 1385, says he has seen indications of opening up wells and letting them run out on the prairie down the streams or into earthen storage but not recently; that the Prairie Oil & Gas Company does not do that intentionally; that improved methods have been developed to prevent a wasteful flood of oil; sometimes they cannot control them but they do as soon as possible.

In the testimony before the Corporation Commission in case No. 10,326-13 relative to amending order No. 5292 so as to shut down the Oklahoma City field until those wells [fol. 344] which are under-produced catch up with those that are even the references to waste will be found on page 115 where Mr. Franklin testified that to force the operators to take any price for oil would result in great economic and actual waste; and on page 202 where Mr. Smith testified that to shut the wells in for a period of from 60 to 120 days would injure them materially, that is that the eventual recovery of oil would not be as great as it would otherwise, so that instead of preventing waste it would result in actual underground waste; and at page 206 where the same witness says that the wells which they compel to shut in will be materially damaged, and again at page 214 he says, "in my opinion, proration has injured the field;" and at page 220 that the proration orders shutting in these wells at various times has materially damaged the wells which has caused a material loss of oil that cannot be recovered.

[fol. 345] Defendants' Exhibit "X", Record, p. 376, potentials Oklahoma City field, January and April, which is in words and figures as follows, to wit:

[fol. 346]

DEFENDANT'S EXHIBIT X

Acme Oil & Gas Co.

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Armourdale	1	12/ 3/30	46,850.52	3/17/31	W. U. Paul Lee Pinkstaff	42,686.40	4/ 3/31	W. U. Paul W. H. Vance
Addition Petroleum Co.								
Aungst	1	2/28/31	.....	.....	.....	61,939.50	5/ 1/31	E. G. Johnson C. M. Keeler R. C. Miller W. H. Vance
Anderson-Prichard Oil Co.								
Brown	1	8/27/30	13,488.72	1/16/31	Carl Bashara C. P. Mackentire J. M. Carter	10,808.78	4/14/31	T. T. Rogers W. H. Vance C. E. Long
Clark	1	2/10/31	.....	.....	.....	25,818.48	4/30/31	Carl Bashara W. H. Vance C. E. Long
M. Gibbons	1	10/23/30	2,628.12	1/ 4/31	Carl Bashara C. R. Fry Harry Valentine J. C. Stevens	3,313.20	4/ 1/31	Carl Bashara A. E. Jones Jack Critcher
M. Gibbons	3	9/21/30	4,659.12	1/ 6/31	Carl Bashara J. M. Carter R. E. Steel	3,433.50	4/ 3/31	Carl Bashara I. T. Hounold L. C. Rice H. J. Anderson J. R. Holder
M. Gibbons	4	3/ 3/31	.....	.....	.....	19,412.94	5/15/31	Carl Bashara Lee Wall C. E. Long

M. Gibbons	5	10/22/31	4,580.34	1/ 7/31	Carl Bashara Noel Chancellor R. E. Clark A. J. Hannah	3,282.00	4/ 4/31	Carl Bashara O. E. Bradley L. C. Rice J. R. Irvin
Graham	1	9/16/30	3,202.20	1/ 7/31	Carl Bashara Noel Chancellor R. E. Clark	2,703.84	4/ 6/31	Carl Bashara I. R. Irvin Virgil Swope
Habeggar	1	9/30/30	990.00	1/31/31	Carl Bashara E. G. Dahlgren C. E. Long C. L. Ray	1,006.26	4/14/31	T. T. Rogers W. H. Vance C. E. Long
Hathaway	1	2/ 9/31				34,928.46	4/18/31	Carl Bashara C. M. Keeler C. E. Long J. B. Abbott
Keys	1	9/14/30	8,276.58	1/31/31	Carl Bashara C. E. Long E. G. Dahlgren	6,044.16	4/ 5/31	Carl Bashara J. B. Abbott C. E. Long
Moore	1	10/30/30	3,654.72	2/ 3/31	Carl Bashara E. G. Dahlgren	2,534.24	4/ 5/31	Carl Bashara J. B. Abbott J. L. Irvin C. E. Long
Orphanage	1	9/21/30				1,543.50	4/21/31	Carl Bashara W. M. Coplin C. E. Long J. T. Leachman
Payne	1	4/ 2/31				23,518.98	6/ 4/31	Carl Bashara R. E. Steel J. L. Thomas Glen Davenport
[fol. 347]								
Pest House	1	8/25/30	4,312.62	1/ 6/31	Carl Bashara J. M. Carter R. E. Steel	5,269.08	4/ 1/31	Carl Bashara L. C. Rice E. F. Banks
Pest House	2	9/ 9/30	8,832.84	1/ 7/31	Carl Bashara Newell Chancellor A. J. Hannah	11,749.50	4/10/31	Carl Bashara Earnest May L. C. Rice

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Rayhill	1	1/26/31	.....	.....	.....	42,496.14	4/ 6/31	Carl Bashara J. R. Lloyd C. E. Long J. R. Irvin O. E. Bradley
Roosevelt	1	8/31/30	8,013.84	1/ 5/31	Carl Bashara Chas. H. Mee	7/121.16	4/ 1/31	Carl Bashara Jack Cutcher Melvin Roger
Roosevelt	2	9/19/30	14,161.32	1/ 4/31	Carl Bashara C. R. Fry Harry Valentine	12,531.60	4/ 3/31	Carl Bashara I. T. Hounold L. C. Rice O. E. Bradley H. J. Anderson
Roosevelt	3	9/23/30	14,837.16	1/ 5/31	Carl Bashara R. E. Dugger R. E. Clark	12,592.56	4/ 2/31	Carl Bashara L. C. Rice E. F. Banks
Roosevelt	4	9/26/30	11,468.10	1/ 4/31	Carl Bashara C. R. Fry Harry Valentine	6,804.00	4/10/31	Carl Bashara Earnest May L. C. Rice E. Browning
Roosevelt	5	9/27/30	5,997.84	1/ 6/31	Carl Bashara J. M. Carter R. E. Steel	4,140.36	4/28/31	Carl Bashara A. L. Rush C. E. Long
Sandnes	1	2/18/31	.....	.....	.....	38,744.94	4/28/31	Carl Bashara A. L. Rush C. E. Long A. N. Wilkinson
Westfall	1	1/29/31	.....	.....	.....	36,718.44	4/26/31	Walter McCann C. E. Long W. E. Best

Wilhoit	1	4/ 7/31	.....	.....	.....	30,606.48	6/11/31	Carl Bashara M. L. Young R. E. Steel
Wright	1	1/20/31	35,356.62	3/20/31	Carl Bashara L. C. Rice	34,028.58	4/ 2/31	Carl Bashara J. Chenault H. L. Chapman A. H. Otis L. C. Rice
				Blackstock et al				
Harvey	3	8/19/30	6,252.00	1/16/31	S. B. Woodson	4,371.60	6/ 8/31	H. V. Woodson C. M. Keeler C. E. Long
				Black Well Oil & Gas Co.				
Clemer	1	9/18/30	.....	.....	.....	3,186.00	6/ 2/31	H. B. Jones W. P. Mercer R. E. Steel
Carr-Page	1	2/23/31	.....	.....	.....	6,378.00	6/ 5/31	H. B. Jones Earnest May R. E. Steel
Schillings	1	1/20/31	.....	.....	.....	42,570.00	4/ 1/31	C. E. Randolph J. B. Abbott
[fol. 348]				British-American Oil Co.				
Echroat	1	10/18/30	54,328.32	1/19/31	Ted Green J. L. Chenault C. B. Wilcoxson R. W. Buzza	51,735.90	4/ 2/31	Ted Green Monroe Dumas B. M. Spratt
Holmes	1	6/18/30	16,105.14	1/ 6/31	Ted Green A. H. Housewright	15,013.56	4/ 3/31	Ted Green P. Beard I. S. McGrew
Holmes	2	8/23/30	11,318.40	1/14/31	Ted Green J. L. Chenault A. H. Housewright	10,452.48	4/ 5/31	D. Runyon I. S. McGrew R. Beard

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Holmes	3	8/16/30	19,146.96	1/14/31	Ted Green J. L. Chenault R. W. Buzza	9,970.98	4/22/31	D. Runyon C. M. Keeler B. E. Jetor
Holmes	4	12/15/30	43,890.24	3/ 2/31	Ted Green C. B. Wilcoxson	51,105.60	4/ 1/31	R. B. Beard Thos. Sultan P. H. Sullens
Holmes	5	9/10/30	54,196.80	1/ 6/31	Ted Green A. H. Housewright	51,242.16	4/ 5/31	Ted Green D. Runyon F. S. McGrew
Holmes	6	12/10/30	49,184.46	2/23/30	Ted Green A. H. Housewright	49,749.00	4/ 1/31	Ted Green R. Beard Thos. Sutton
Holmes	7	11/25/30	31,392.84	2/16/31	Ted Green C. M. Keeler A. H. Housewright	29,580.84	4/ 7/31	D. Runyon Munroe Dumas P. H. Sullens
Lindsay	1	4/28/30	7,671.36	1/11/31	Troy Ware C. M. Keeler Chas. Silvis	7,228.44	4/ 2/31	Ted Green P. Sullens Fred Homer
					California Operating Co.			
Stout	1	1/15/31	.....	.....	.....	3,685.50	5/ 5/31	G. W. Graham C. M. Keeler J. T. Leachman C. E. Long
					Capitol Producing & Refining Co.			
Jones	1	12/19/30	48,639.66	3/10/31	J. R. Stribling L. C. Rice	46,419.84	4/ 2/31	R. L. Waldy R. E. Dugger Joy Sneed E. L. Browning W. W. Bodine

Century Petroleum Co.

Barr	1	9/11/30	17,357.76	3/19/31	F. G. Blackwood... E. C. Rice Lloyd G. Elliott	17,046.30	4/ 1/31	F. G. Blackwood P. B. Banker
Jefferson	1	10/ 5/30	.....	.....	.....	5,058.18	5/26/31	F. G. Blackwood K. S. McNabb J. T. Leachman
McConnell	1	1/27/31	.....	.....	.....	45,393.78	4/ 6/31	F. G. Blackwood W. H. Vance Jack Cutcher
Wheeler	1	12/16/30	44,866.26	3/11/31	F. G. Blackwood... L. C. Rice E. S. Stevens	43,624.92	4/ 1/31	F. G. Blackwood S. S. Holme J. C. Norris E. B. Epperley
Wyatt	1	8/13/30	36,256.14	3/10/31	F. G. Blackwood... L. C. Rice	42,923.10	4/ 1/31	F. G. Blackwood R. E. Dugger K. S. McNabb

[fol. 349]

Champlin Oil & Refining Co.

McCalep	1	8/26/30	15,829.20	3/ 4/31	S. G. Wentworth... C. M. Keeler L. C. Rice	11,648.70	4/ 1/31	S. C. Wentworth Thos. Sutton C. N. Hughes L. C. Rice
Naden	1	8/20/30	16,756.62	3/ 4/31	F. C. Wentworth... C. M. Keeler L. C. Rice J. B. Abbott	9,915.54	4/ 2/31	F. C. Wentworth J. E. Jones A. B. Allen C. E. Long Virgil Swope
Seal	1	3/16/31	.....	.....	.....	440.88	4/13/31	F. F. Pipkin A. L. Rush C. E. Long
Seal	2	3/21/31	.....	.....	.....	818.16	4/13/31	F. F. Pipkin A. L. Rush C. E. Long

DEFENDANT'S EXHIBIT X—Continued

Chatham Oil Company

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Echroat	1	1/ 8/31	52,692.48	3/17/31	Ted Green L. C. Rice Duade Edwards	51,558.72	4/ 1/31	Ted Green J. B. Abbott
Lindsay	3	9/16/30	54,237.00	1/17/31	Ted Green E. G. Dahlgren J. B. Abbott	49,731.24	4/ 6/31	D. Runyon R. R. Wentworth C. E. Long J. T. Leachman

Coline Oil Company

Clauer	2	3/18/30	1,767.78	1/29/31	C. A. Bigbie C. E. Robertson	573.60	4/ 4/31	C. H. Bigbie R. E. Robertson
Clauer	3	1/15/30	1,929.36	1/ 8/31	C. H. Bigbie C. E. Robertson	1,712.82	4/ 4/31	C. H. Bigbie C. E. Robertson
Clauer	4	4/17/30	.....	.....	.....	2,431.80	4/22/31	C. H. Bigbie W. M. Copeland
Clauer	5	5/19,30	1,320.00	1/10/31	C. H. Bigbie C. E. Robertson	1,429.98	4/ 5/31	C. H. Bigbie C. E. Robertson
Clauer	6	6/26/30	5,316.60	1/ 5/31	C. H. Bigbie C. E. Robertson	4,202.32	4/ 3/31	C. H. Bigbie C. E. Robertson
Clauer	7	8/11/30	1,452.90	1/ 3/31	C. H. Bigbie Mearl Mays	1,759.92	4/ 3/31	C. H. Bigbie C. E. Robertson
Clauer	8	7/15/30	932.88	1/ 7/31	C. H. Bigbie C. E. Robertson	835.44	4/ 5/31	C. H. Bigbie C. E. Robertson
Clauer	9	7/21/30	6,784.98	1/ 5/31	C. H. Bigbie C. E. Robertson	5,721.66	4/ 8/31	C. H. Bigbie B. A. Harroun
Clauer	10	8/ 5/30	835.92	1/ 8/31	C. H. Bigbie C. E. Robertson	911.94	4/ 1/31	C. H. Bigbie C. E. Robertson
Clauer	11	9/27/30	10,203.36	1/ 3/31	C. H. Bigbie Mearle Mays	4,053.06	4/ 1/31	C. H. Bigbie C. E. Robertson

Clauer	12	8/ 9/30	934.98	1/ 4/31	C. H. Bigbie C. E. Robertson	1,507.14	4/ 7/31	C. H. Bigbie B. A. Harroun
Clauer	13	8/ 1/30	1,477.44	1/ 4/31	C. H. Bigbie C. E. Robertson	1,787.88	4/ 6/31	C. H. Bigbie B. A. Harroun
Clauer	14	9/13/30	565.68	1/ 6/31	C. H. Bigbie C. E. Robertson	691.44	4/ 6/31	C. H. Bigbie B. A. Harroun
Clauer	15	9/ 8/30	6,303.90	1/19/31	C. H. Bigbie C. E. Robertson	7,065.96	4/22/31	C. H. Bigbie W. M. Copeland
Clauer	16	8/13/30	600.00	1/10/31	C. H. Bigbie C. E. Robertson			
[fol. 350]								
Olds	1	6/27/29	1,764.18	1/ 8/31	C. H. Bigbie J. H. Smithers	1,190.82	4/ 1/31	C. H. Bigbie Clay Young
Olds	2	11/14/29	1,613.88	1/ 4/31	C. H. Bigbie J. H. Smithers	1,947.90	4/ 1/31	C. H. Bigbie Clay Young
Olds	3	10/30/29	10,228.32	1/ 7/31	C. H. Bigbie J. H. Smithers	9,828.66	4/ 3/31	C. H. Bigbie Clay Young
Olds	5	3/11/30	804.18	1/ 7/31	C. H. Bigbie J. H. Smithers	1,057.02	4/ 3/31	C. H. Bigbie Clay Young
Olds	6	2/23/30	599.82	1/ 6/31	C. H. Bigbie J. H. Smithers	764.94	4/ 2/31	C. H. Bigbie Clay Young
Olds	7	4/ 4/30	2,355.84	1/ 8/31	C. H. Bigbie J. H. Smithers	1,240.56	4/ 3/31	C. H. Bigbie Clay Young
Olds	8	9/ 9/30	488.52	1/10/31	C. H. Bigbie J. H. Smithers	598.56	4/ 4/31	C. H. Bigbie Clay Young
Olds	9	4/ 2/30	3,732.90	1/ 6/31	C. H. Bigbie J. H. Smithers	2,712.36	4/ 7/31	C. H. Bigbie Clay Young
Olds	10	5/25/30	3,479.82	1/ 4/31	C. H. Bigbie J. H. Smithers	3,247.56	4/ 4/31	C. H. Bigbie Clay Young
Olds	11	6/11/30	1,498.44	1/ 3/31	C. H. Bigbie J. H. Smithers	1,104.12	4/ 5/31	C. H. Bigbie Clay Young
Warren	1	1/ 3/30	.....	.....	.....	253.26	4/27/31	W. M. Copeland C. H. Bigbie
Warren	3	4/27/30	2,659.80	1/19/31	T. K. Davis Clay Young	1,925.22	4/ 6/31	C. H. Bigbie Clay Young

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Warren	4	3/10/30	8,907.60	1/ 3/31	C. H. Bigbie H. J. Smithers	3,919.62	4/22/31	C. H. Bigbie C. L. Jones
Warren	7	3/24/30	3,215.46	1/ 5/31	C. H. Bigbie J. H. Smithers	2,938.44	4/ 7/31	C. H. Bigbie Clay Young
Warren	8	5/23/30	2,377.02	1/29/31	C. H. Bigbie Louis Kaseillmy	1,062.12	4/22/31	C. H. Bigbie C. L. Jones
Warren	9	5/31/30	2,458.50	1/ 5/31	C. H. Bigbie J. H. Smithers	1,874.52	4/ 5/31	C. H. Bigbie Clay Young
				Continental Oil Co.				
V. Sudik	1	6/23/00	6,100.20	1/ 3/31	L. O. Hibbs J. F. Armstrong	961.08	4/18/31	L. O. Hibbs E. L. Browning
V. Sudik	3	7/ 8/30	14,807.58	1/ 6/31	L. O. Hibbs J. Chenault	8,164.14	5/12/31	L. O. Hibbs Clay Young C. E. Long
V. Sudik	5	11/ 3/30	510.36	2/ 8/31	L. O. Hibbs Lon C. Rice	450.18	4/ 7/31	L. O. Hibbs Floyd Jones
Vinita Park	1	10/ 8/30	20,176.62	1/19/31	B. D. Bigbie I. S. McGrew J. B. Abbott	17,894.88	4/ 8/31	L. O. Hibbs J. H. Beard
Vinita Park	2	10/25/30	8,116.20	1/19/31	B. D. Bigbie I. S. McGrew E. G. Dahlgren J. B. Abbott	5,441.52	4/ 9/31	L. O. Hibbs J. H. Bond C. E. Long
				Cromwell-Franklin				
Trosper Park	2	2/11/30	11,597.88	1/ 4/31	Jack Woolsey C. J. Owens S. R. Lonlall	10,591.92	4/ 2/31	H. M. Hales J. G. Cartland W. H. Janis J. R. Irvin

Trosper Park	8	4/19/30	8,525.76	1/ 5/31	H. F. Briggs E. G. Dahlgren D. N. Humphrey I. E. Atkinson	6,110.70	4/ 2/31	H. M. Hales J. G. Cartland J. C. Rosenberger
[fol. 351]								
Trosper Park	9	2/ 9/30	4,798.32	1/ 4/31	Jack Woosley C. J. Jones S. R. Lonlall			
Trosper Park	10	3/21/30	9,739.56	1/ 5/31	F. W. Lansen C. J. Jones S. R. Lonalll	8,199.78	4/ 2/31	H. M. Hales J. G. Cortland J. C. Rosenberger
Trosper Park	13	4/ 3/30	21,718.86	1/ 4/31	D. N. Humphrey F. H. Briggs I. E. Atkinson E. G. Dahlgren	24,390.12	4/ 2/31	H. M. Hales J. G. Cartland W. H. Jones J. R. Irwin
Trosper Park	17	6/ 7/30	17,943.12	1/ 4/31	Jack Woolsey C. G. Jones S. R. Lonlall	16,809.96	4/ 7/31	H. M. Hales J. G. Cartland F. H. McCann
Trosper Park	18	5/ 6/30	14,294.88	1/ 4/31	D. N. Humphrey F. H. Briggs E. G. Dahlgren I. E. Atkinson	14,422.80	5/15/31	H. M. Hales C. M. Keeler
Trosper Park	19	5/21/30	27,174.30	1/ 3/31	D. N. Humphrey E. G. Dahlgren	25,728.84	4/ 5/31	H. M. Hales C. M. Keeler L. O. Bradford
Trosper Park	20	7/24/30	19,239.54	1/ 5/31	F. W. Lauson C. J. Jones S. R. Laulall	19,427.64	4/ 6/31	H. M. Hales J. G. Cartland A. S. Webb
Trosper Park	21	7/16/30	27,292.24	1/ 4/31	D. N. Humphrey F. H. Briggs E. G. Dahlgren I. E. Atkinson	26,229.66	4/ 3/31	H. M. Hales J. G. Cartland L. O. Bradford
Trosper Park	23	7/21/30	11,488.50	1/ 3/31	D. N. Humphrey E. G. Dahlgren	11,457.06	4/ 2/31	H. M. Hales J. G. Cortland W. H. Janis J. R. Irwin

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Trosper Park	22	8/12/30	19,902.94	1/ 5/31	D. N. Humphrey E. H. Briggs E. G. Dahlgren I. E. Atkinson			
Trosper Park	24	7/23/30	3,307.50	1/ 6/31	D. N. Humphrey... F. H. Briggs I. E. Atkinson	2,220.48	4/ 2/31	H. M. Hales J. G. Cartland W. H. Janis J. R. Irwin
Trosper Park	25	8/17/30	22,091.88	1/ 5/31	F. W. Lawson..... C. J. Jones S. R. Loulall	24,144.24	4/15/31	H. M. Hales J. E. Bitler
Trosper Park	26	9/23/30	16,716.48	1/ 6/31	Jack Woosley..... C. J. Jones S. R. Loulall	14,964.36	4/16/31	H. M. Hales E. L. Browning J. T. Leachman
Trosper Park	27	8/12/30	28,044.78	1/ 7/31	D. N. Humphrey... C. J. Jones	31,377.18	4/10/31	H. M. Hales J. L. Chenault W. H. Vance
Trosper Park	30	10/13/30	7,419.84	1/ 6/31	D. N. Humphrey... F. H. Briggs E. G. Dahlgren I. E. Atkinson	6,787.20	4/ 2/31	H. M. Hales J. G. Cartland W. H. Janis J. R. Irwin
Trosper Park	31	10/11/30	9,133.32	1/ 6/31	D. N. Humphrey... F. H. Briggs I. E. Atkinson	9,714.72	4/21/31	H. M. Hales R. J. Black J. T. Leachman
Trosper Park	33	12/ 8/30	10,331.46	2/ 8/31	H. M. Hales..... E. G. Dahlgren	7,149.78	6/11/31	H. M. Hales C. M. Keeler
Trosper Park	34	10/26/30	3,961.44	1/ 6/31	Jack Woosley..... C. J. Jones S. R. Loulall	5,137.02	4/23/31	H. M. Hales J. E. Bitler

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Dengail Oil & Gas Co.								
Hile	1	1/14/31	.....	.....	.....	47,454.60	4/ 1/31	H. M. Cabinett A. L. Rush
Schillings	1	9/21/30	3,177.54	3/20/31	H. M. Robinett L. C. Rice			
Woodson	1	2/ 3/31	.....	.....	.....	33,084.06	4/ 9/31	H. M. Robinett C. E. Long J. B. Abbott
Denver Producing Re& fining Co.								
Alexander	1	12/11/30	49,785.72	2/11/31	H. M. Robinett E. G. Dahlgren J. B. Abbott W. C. Reimer	47,354.88	4/ 1/31	H. E. Rapp R. E. Dugger C. R. Welch
Harvey	1	11/10/30	16,029.84	1/ 8/31	Everett Ball Carl Bashara	15,419.52	4/ 4/31	H. E. Rapp J. M. Akins Harry Marshall
Hatfield	1	1/ 7/31	.....	.....	.....	24,119.10	4/ 7/31	H. M. Robinett J. B. Abbott C. E. Long
Whitten	1	8/ 8/30	9,309.12	1/16/31	Fred Homer E. G. Dahlgren	9,894.48	4/ 7/31	Fred Homer E. F. Banks
Donleon Oil Co.								
Hunzicher	1	12/ 7/30	47,064.66	3/11/31	C. L. Marvin L. C. Rice Frank Baker	54,335.70	4/13/31	W. U. Paul D. Y. Wilson Jack Cutcher
Eason Oil Co.								
Lively	1	3/ 2/31	.....	.....	.....	38,532.66	4/24/31	J. McCabe C. M. Keeler J. T. Leachman W. M. Copeland C. E. Long

Empire Oil Co.

Lease	Well No.	Date well came in	January pot.	Date	Witness	Arpil pot.	Date	Witness
Gustin	1	11/16/30	.....	.....	.....	1,738.80	4/ 1/31	G. R. Biddle Dewey Kelley John Smith Melvin Rogers
Gustin	2	1/ 5/31	6,592.02	3/24/31	C. R. Biddle..... L. C. Rice	6,234.72	4/ 6/31	C. R. Biddle G. E. Bitler K. S. McNabb John Smith
Refinery Site	1	2/18/31	.....	.....	.....	19,054.44	4/17/31	B. C. Miller W. M. Copeland C. E. Long R. L. Craven

Wirt-Franklin Pet. Corp.

Lease	Well No.	Date well came in	January pot.	Date	Witness	Arpil pot.	Date	Witness
Burge	1	10/ 2/30	2,364.48	1/ 6/31	F. W. Lawson..... E. G. Dahlgren	3,125.16	5/ 1/31	C. B. Baker W. M. Copeland C. E. Long
Holder	1	8/ 3/30	2,742.78	1/ 7/31	F. W. Lawson..... K. S. McNabb H. H. Farrell	2,803.50	4/ 2/31	C. B. Baker T. J. Leachman C. E. Jones
[fol. 353] Holder	2	9/12/30	4,950.24	1/ 6/31	R. L. Hunter..... J. E. Findley E. Wallace	4,662.00	4/ 3/31	C. R. Baker Robert Black W. R. Mooney
Lowery	2	9/ 2/29	11,842.14	1/ 4/31	R. L. Hunter..... Forrest Wolfe I. S. McGrew	11,130.30	4/ 3/31	R. C. Jarrel J. E. Jones E. W. & F. B. Jones Dewey Kelley
Lowery	3	2/ 7/30	18,248.82	1/ 3/31	R. C. Jarrel..... Forrest M. Hall Earl Steel	17,803.50	4/ 1/31	Oddis Patton R. C. Jarrel

Lowery	4	2/17/30	11,874.72	1/ 5/31	R. L. Hunter Forrest Hall Earl Steel	10,993.44	4/ 5/31	R. C. Jarrel Jess Shipley E. L. Dodson
Lowery	6	3/17/30	9,343.56	1/ 4/31	R. L. Hunter I. S. McGrew Forrest Hall	567.00	4/19/31	R. C. Jarrel K. C. McNabb E. L. Browning
Lowery	7	3/ 6/30	15,206.30	1/ 3/31	R. L. Hunter Forrest Hall J. E. Findley	14,666.28	4/ 2/31	R. C. Jarrel W. H. Vance A. H. Otis
Lowery	8	6/20/30	14,156.22	1/ 4/31	R. L. Hunter Forrest Hall I. S. McGrew	13,964.94	4/ 3/31	R. C. Jarrel J. F. O'Donnell Dewey Kelley
Lowery	9	8/19/30	12,343.92	1/ 4/31	R. L. Hunter Forrest Hall L. S. McGrew	7,755.84	4/ 3/31	Jesse Shipley E. L. Dotson
Lowery	10	9/ 5/30	14,612.28	1/ 5/31	R. L. Hunter Forrest Hall R. E. Steel	10,316.88	4/ 2/31	R. C. Jarrel W. H. Vance Harry C. Stever
Lowery	11	9/17/30	4,223.10	1/ 5/31	R. L. Hunter Forrest Hall R. E. Steel	8,821.44	4/ 1/31	R. C. Jarrel Oddis Patton
M. Page	1	7/30/30	6,239.34	1/18/31	R. C. Jarrel E. G. Dahlgren R. E. Steel	5,270.52	4/ 5/31	R. C. Jarrel K. S. McNabb W. A. Robinson
M. Page	2	7/14/30	5,409.30	1/13/31	R. L. Hunter A. H. Housewright K. S. McNabb	3,487.38	4/ 5/31	R. C. Jarrel K. S. McNabb Sam Houk
M. Page	3	11/16/30	6,567.84	1/18/31	R. C. Jarrel E. G. Dahlgren R. E. Stone	7,254.24	4/ 6/31	J. C. Jarrel W. H. Vance K. S. McNabb
M. Page	4	9/15/30	3,300.06	1/18/31	R. C. Jarrel R. E. Steel E. G. Dahlgren	2,524.80	4/ 4/31	K. S. McNabb G. O. Davenport
M. Page	5	9/30/30	8,588.10	1/16/31	R. C. Jarrel R. E. Dugger J. E. Hoover J. E. Fildby	7,071.42	4/ 7/31	R. C. Jarrel W. H. Vance Melvin Rogers E. Wallace

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Shahan	1	10/24/30	3,042.70	1/ 4/31	F. W. Lawson Paul H. Sullens Harry Khoury	2,609.52	4/ 2/31	R. C. Jarrel E. G. Jones J. T. Leachman
Shahan	2	12/ 1/30	1,542.78	2/14/31	R. C. Jarrel L. C. Rice			
Schillings	1	3/10/31				33,095.40	5/28/31	R. C. Jarrel Paul H. Sullens J. T. Leachman Glen Davenport
[fol. 354]								
Theimer	1	3/13/30	22,544.32	1/ 3/31	R. L. Hunter E. E. Pendleton K. S. McNabb	22,672.68	4/ 1/31	C. R. Baker V. D. Biby E. L. Dotson Jesse Shipley
Theimer	4	6/16/30	10,787.28	1/ 4/31	F. W. Lawson Paul H. Sullens Harry Khony	9,109.32	4/ 4/31	C. R. Baker Robert Black Chas. T. Lewis
Theimer	5	1/ 3/31	3,112.56	3/23/31	C. R. Baker L. C. Rice	3,238.32	4/ 5/31	C. R. Baker W. H. Vance Chas. Lewis E. Wallace
Theimer	7	8/11/30	1,764.12	1/ 6/31	R. L. Hunter J. E. Findley E. Wallace			
Theimer	8	8/ 1/30	23,144.76	1/ 4/31	F. W. Lawson Paul H. Sullens Harry Khony	24,860.10	4/ 2/31	C. R. Baker J. E. Jones Dewey Kelley
Theimer	10	9/ 8/30	2,578.08	1/28/31	C. R. Baker E. G. Dahlgren E. Wallace	2,640.96	4/ 1/31	C. R. Baker V. D. Biby E. L. Dodson
Theimer	11	8/23/30	6,021.30	1/ 6/31	F. W. Lawson E. G. Dahlgren	5,357.64	4/ 2/31	C. R. Baker W. H. Vance J. T. Leachman

Theimer	12	9/18/30	3,930.00	1/ 6/31	F. W. Lawson E. G. Dahlgren	3,596.76	4/ 4/31	C. R. Baker Robert Black Chas. Lewis
Theimer	13	9/ 2/30	4,967.52	1/ 3/31	C. R. Baker E. P. Meadows C. E. Harrison	8,316.00	4/ 5/31	C. R. Baker E. L. Browning E. Wallace C. T. Lewis
Theimer-Butterfield	1	9/25/30	2,569	.....	.....	2,569.08	6/11/31	R. C. Jarrel R. E. Steel
Page-Tucker	1	10/23/30	6,741.72	1/ 4/31	F. W. Lawson Paul H. Sullens Harry Khony	4,319.04	4/ 8/31	R. C. Jarrel A. C. Garrison L. C. Rice
Wright	1	6/24/30	4,326.30	2/22/31	C. R. Baker C. E. Long Melvin Rogers	1,610.88	4/16/31	C. R. Baker W. M. Copeland L. C. Rice J. B. Abbott
Wright	2	9/14/30	1,700.76	2/13/31	R. L. Hunter A. H. Housewright K. S. McNabb	661.26	5/ 4/31	C. R. Baker C. M. Keeler C. E. Long
Wright	3	9/21/30	15,175.08	1/30/31	C. R. Baker E. G. Dahlgren C. E. Long	14,583.00	4/15/31	C. R. Baker C. E. Long W. M. Copeland
					Hall & Briscoe			
Mueller	1	9/24/30	20,865.84	3/ 8/31	J. L. Simpson C. M. Keeler	8,644.32	4/18/31	Fred Waltermire C. M. Keeler Jack Critcher
[fol. 355]					Indian Territory Illuminating Oil Co.			
L. Banta	1	4/16/30	675.96	1/23/31	A. E. Dugger C. M. Keeler	660.24	4/20/31	G. A. McIntyre C. M. Keeler W. M. Copeland
Barker-Drake	1	3/ 2/30	8,239.02	1/ 4/31	Thos. L. Powell O. E. Yeatts T. B. Natpol	6,441.84	4/ 2/31	C. W. Carter Harry Valentine S. P. Spaulding
A. Bodine	3	2/ 5/30	2,45=	.....	.....	2,452.32	5/18/31	R. C. Prosser C. M. Keeler

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
A. Bodine	4	2/15/30	.....	.....	.....	2,491.62	5/18/31	W. T. Sone C. E. Robertson
A. Bodine	5	2/ 1/30	660.24	1/11/31	Wylie Pitchford E. G. Dahlgren L. D. Todfin	377.28	4/ 8/31	Roy Thomas Harry Valentine
A. Bodine	6	3/ 1/30	1,477.68	1/13/31	Wylie Pitchford E. G. Dahlgren Chas. Lowery	691.68	4/ 8/31	J. A. McCaa Harry Valentine
A. Bodine	7	3/23/30	471.60	1/11/31	Wylie Pitchford E. G. Dahlgren Chas. Lowery	628.80	4/15/31	J. A. McCall C. M. Keeler
Bodine-Anderson	1	10/19/29	377.28	1/ 7/31	Roy Woodcock J. B. Barnes T. B. Butler	251.52	4/ 8/31	Hugh M. Herbert W. H. Norwood
Bodine-Anderson	3	3/ 3/30	377.28	1/ 8/31	W. H. Norwood T. B. Butler J. B. Barnes	220.08	4/20/31	H. L. Stokes C. M. Keeler
S. Bodine	3	2/26/30	503.04	1/ 7/31	G. W. Alexander T. B. Butler J. B. Barnes L. O. Hardy	377.28	4/15/31	Chas. Lowery R. J. Black
E. Border	1	5/ 4/30	2,170.62	1/ 3/31	L. D. Todd Virgil Harrel	2,170.62	4/ 3/31	Roy Thomas Lester Ferguson Jesse Shipley
Blvd. View	1	8/ 8/30	1,680.48	1/ 4/31	E. E. Pendleton C. M. Keeler Claud Locke T. V. Banker Lee Wall	1,843.86	4/ 8/31	Stone Burris Fred Homer
C. Brokaw	1	2/19/30	.....	.....	.....	2,894.16	5/22/31	C. E. Annear B. C. Stone
C. Brokaw	2	3/ 6/30	3,430.98	1/11/31	Paul S. Creed C. B. Jarrel	3,641.04	5/20/31	T. G. Willgrube B. C. Stone

C. Brokaw	3	5/25/30	10,736.40	1/13/31	J. J. Crowden E. G. Dahlgren E. G. Crabtree	7,095.36	4/16/31	J. J. Cowden B. C. Stone
C. Brokaw	4	7/28/30	11,028.12	1/12/31	J. J. Cowden C. M. Keeler	12,813.66	4/14/31	J. J. Cowden R. J. Black
Butterfield	1	3/12/30	7,795.56	1/ 3/31	John Neal Surtcher C. M. Keeler Fred W. Long			
Button	4	2/ 5/30	1,383.36	1/11/31	Wylie Pitchford C. M. Keeler Chas. Lowery	1,163.28	4/ 8/31	W. H. Norwood W. C. Stevens Virgil Swope
C. Button	2	3/ 1/30	1,572.00	3/ 1/31	H. L. Stokes J. R. Wolfe W. L. Stone	1,304.76	4/15/31	W. H. Norwood L. O. Hardy
C. Button	3	3/26/30	2,326.56	1/ 7/31	L. D. Todd S. D. Hardy Chas. Lowery	1,116.12	4/14/31	W. H. Norwood H. C. Minor
L. Canfield	2	2/25/30	754.56	1/26/31	Chas. Lowery C. M. Keeler L. D. Todd			
[fol. 356]								
Capshaw	1	8/18/30				886.92	5/ 9/31	J. M. Akins G. H. Lee
Carrico	1	7/24/30	13,210.44	1/ 5/31	C. L. McGuffee C. M. Keeler E. E. Pendleton L. A. Woosdon	5,508.24	4/ 5/31	O. H. Wolfe J. H. Bond J. C. Rosenberger
Carrico	2	7/28/30	4,061.15	1/ 4/31	G. E. Sailsbury P. V. Banker E. E. Pendleton Lee Wall	3,337.62	4/ 3/31	Stone Burris J. C. Rosenberger Jach Critcher
Carrico	3	9/22/30	10,736.40	1/ 3/31	Lee Wall C. M. Keeler Roy Rose	9,756.12	4/ 2/31	J. W. Dollar S. A. Revell
Carrico	4	9/16/30	4,808.04	1/11/31	P. V. Banker R. E. Dugger	3,944.46	4/ 4/31	Stone Burris James Chenault I. T. Harrel

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Carrico	5	9/19/30	2,707.44	1/ 6/31	Geo. Jones C. M. Keeler E. E. Pendleton	2,380.68	4/ 4/31	Stone Burris C. M. Keeler J. C. Rosenberger
Coppinger	1	7/30/30	10,082.88	1/ 7/31	W. H. Smith Neal Conley C. B. Wilcoxson F. B. Jobe	8,028.96	4/ 5/31	Lee Pennington Virgil Swope G. E. Butler
Coppinger	2	9/ 2/30	840.24	1/27/31	J. W. Dollar O. E. Yeatts			
Coppinger	3	9/ 5/30	1,960.56	1/10/31	S. B. Barron V. E. Jeter	1,820.52	4/15/31	Lee Pennington W. H. Vance Virgil Swope
Coppinger	4	10/12/30	3,112.56	1/ 5/31	S. B. Brannon F. V. Jobe Lloyd R. Lacey Neal Chancellor			
Coppinger	5	8/24/30	3,364.08	1/11/31	S. Brannon J. E. Jeter Ralph E. Clark	2,923.92	4/20/31	Lee Pennington G. E. Bitler
Coppinger	6	9/ 7/30	3,835.68	1/14/31	O. C. Fum Chas. Silvis R. E. Dugger	2,703.84	6/ 8/31	Ray Clear Neal Conley
Coppinger	7	9/ 2/30	2,295.12	1/27/31	H. A. Bosse E. G. Dahlgren O. E. Yeatts	2,043.60	4/15/31	Lee Pennington P. S. Harlow W. H. Vance
Coppinger	8	10/ 7/30	2,986.80	1/14/31	H. A. Bosse R. E. Dugger Chas. Silvis	2,892.48	4/21/31	O. G. Garrett C. M. Keeler S. J. Ward
Corff Sub. Div	1	7/28/30	5,321.52	1/11/31	H. A. Bosse Chas. Silvis	6,068.40	4/ 7/31	O. H. Wolfe B. W. Draper W. J. Riddle
Corff Sub. Div	2	8/19/30	3,127.56	1/ 6/31	I. H. Terhume F. B. Jobe J. R. Holder	3,080.88	4/14/31	O. H. Wolfe C. M. Keeler S. P. Spaulding

Corff Sub. Div.....	3	10/ 1/30	2,474.04	1/ 7/31	O. C. Fum..... A. H. Housewright F. B. Jobe	3,547.68	4/16/31	O. C. Fum A. R. Wentworth J. T. Leachman
Corff Sub. Div.....	5	9/ 5/30	10,129.56	1/ 3/31	O. C. Fum..... R. E. Dugger D. E. Engle	8,355.72	4/ 5/31	O. C. Fum J. E. Bitlet J. T. Leachman
Drake.....	1	2/ 8/30	3,944.40	1/ 4/31	Thos. L. Powell.... C. M. Keeler O. E. Yeatts	2,940.84	4/ 2/31	Thos. L. Powell Lee Stomm
Drake.....	2	1/24/80	4,738.02	1/ 6/31	Thos. L. Powell.... C. M. Keeler Casey Cole J. W. Thomas	3,267.60	4/ 5/31	Thos. L. Powell T. B. Nostpob
[fol. 357]								
Eacock.....	1	8/28/30	1,727.16	1/ 4/31	Olin Harris..... Casey Cole Roy A. Smith	1,353.72	4/ 5/31	Lee Pennington J. E. Webb A. S. Webb
Eacock.....	2	8/31/30	2,660.76	1/ 5/31	Olan Harris..... E. H. Jones Lee Wall	2,240.64	4/ 5/31	Olan Harris J. R. Holder Floyd Jones
Earps Add.....	1	3/24/31	.....	.....	.....	5,659.20	6/ 4/31	W. L. Stone C. M. Cleim
N. Emerson.....	2	12/28/29	282.96	1/ 9/31	Roy Kruce..... E. G. Dahlgren Chas. Silvis	220.08	4/ 2/31	H. L. Smith J. E. O'Donnell
N. Emerson.....	3	3/28/30	606.84	1/ 9/31	Roy Krice..... E. G. Dahlgren Chas. Silvis	793.56	4/ 8/31	H. L. Smith A. S. Webb Clay Young
N. Emerson.....	4	2/25/30	140.04	1/27/31	Roy Kruce..... C. G. Crabtree	23.44	4/ 1/31	H. L. Smith J. W. Wyre B. C. Thornbrue
N. Emerson.....	5	5/13/30	2,287.32	1/ 6/31	Jack Wolfenbarger.. Neal Conley T. B. Butler	2,427.36	4/ 6/ 31	G. W. Alexander A. L. Peek B. C. Thronbrue
N. Emerson.....	6	5/21/30	1,120.32	1/ 9/31	Roy Kruce..... E. G. Dahlgren Chas. Silvis	2,100.60	4/11/31	A. M. Bramm C. M. Keeler

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
N. Emerson	7	5/27/30	1,120.32	1/ 9/31	Roy Kruce Chas. Silvis E. G. Dahlgren	1,307.04	4/ 7/31	H. L. Smith A. R. Wentworth T. B. Butler
N. Emerson	8	5/14/30	746.88	1/ 6/31	Jack Wolfenbarger Neal Connelly T. B. Butler	4,341.24	4/11/31	G. W. Alexander C. M. Keeler
N. Emerson	10	5/14/30	94.32	1/ 8/31	Russell Harris Neal Conley T. B. Butler			
N. Emerson	11	7/23/30	2,578.08	1/ 6/31	Jack Wolfenbarger Neal Conley T. B. Butler	2,861.04	4/ 3/31	G. W. Alexander W. G. Durker E. W. Burrus
E. Farley	1	5/ 2/30	5,134.80	1/ 8/31	L. D. Kodges C. M. Keeler Chas. Lowery	4,481.28	4/ 3/31	Roy Thomas Floyd Jones H. R. Holder
L. Farley	1	1/22/30	990.36	1/ 8/31	W. A. Wallace Roy Thomas O. W. Yorger E. P. McFarland	1,817.84	4/23/31	Roy Thomas C. M. Keeler W. M. Copeland
L. Farley	2	3/ 7/30	.....	.....	.....	503.04	5/ 5/31	Roy Thomas F. B. Jobe
L. Farley	3	4/ 1/30	5,769.24	1/ 9/31	W. A. Wallace Roy Thomas J. S. Brown L. O. Hardy J. A. McCall E. P. McFarland	4,653.12	4/11/31	R. C. Prosser G. E. Bitler J. M. Akins
L. Farley	4	6/19/30	13,927.92	1/ 7/31	J. A. McCall R. C. Prosser Forrest Hall W. L. Taylor W. A. Wallace	15,201.24	4/10/31	Roy Thomas G. E. Bitler J. A. McCaa

Farley-Fuzzell	1	2/ 4/30	12,183.00	1/ 6/31	W. R. Wallace E. A. Davis J. A. McCall Roy Thomas	1,289.04	4/14/31	Roy Thomas E. G. Crabtree
Farley-Fuzzell	2	3/ 7/30	12,984.72	1/ 7/31	J. A. McCall Forrest Hall W. L. Taylor W. A. Wallace Roy Thomas	11,412.72	4/ 8/31	Roy Thomas W. C. Stevens James Chenault
[fol. 358]								
R. Ferguson	1	3/10/31	.....	.....	.....	4,841.76	5/20/31	R. Pope G. McClain
Ferndale Comm	1	4/14/30	19,492.80	1/10/31	W. B. Jones B. E. Jetton	19,178.40	4/ 3/31	J. E. Findley J. R. Holden Francis McCann
Ferndale Comm	2	5/ 8/30	7,325.52	1/ 5/31	Martin Hopper C. M. Keeler	2,766.72	4/ 7/31	J. E. Findley I. T. Honnold Virgil Swope
Ferndale Comm	3	10/29/30	7,545.60	1/12/31	Martin Hopper E. G. Dahlgren L. A. Woodson	6,130.80	4/ 5/31	J. E. Findley Floyd Jones Virgil Swope
Ferndale Comm	4	8/13/30	13,933.08	1/ 9/31	Olan Harris J. R. Holder			
Ferndale Comm	5	9/21/30	2,800.80	1/ 4/31	Olan Harris Casey Cole J. M. Dietrich	1,913.88	4/ 6/31	Lee Pennington Virgil Swope
Foster	1	9/26/29	59.52	2/ 6/31	Edwin Stalup E. G. Dahlgren	37.50	4/11/31	J. M. Akins F. B. Jobe E. C. Rosenberger
A. B. Fox	1	11/21/30	5,502.00	2/17/31	Chas. Cleveland C. M. Keeler O. E. Yeatts	5,140.44	4/ 4/31	Chas. Barlow J. P. Chenault I. T. Hounold
Chas. Funk	1	9/20/30	8,834.64	1/ 9/31	Martin Hopper Lee Wall	8,425.92	4/ 1/31	Lee Pennington Earl Saward Virgil Swope
M. Fuzzell	1	9/ 7/29	738.84	3/12/31	E. P. McFarland E. G. Crabtree			

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
M. Fussell	3	6/21/30	2,200.80	1/ 9/31	Roy Thomas W. A. Wallace J. S. Brown L. O. Harding J. A. McCall H. M. Rice	1,446.24	4/ 2/31	Roy Thomas W. M. Copeland
J. H. George	1	7/14/30	748.50	1/10/31	W. R. Mooney J. R. Holden	568.86	4/ 8/31	Arthur Cross B. C. Stone J. C. Rosenberger
Habeggar-Precure	1	7/28/30	6,675.24	1/ 6/31	B. E. Seikel C. M. Keeler E. E. Pendleton	5,041.44	4/ 2/31	D. D. Dawson Lee Stever D. W. Dyker
Habeggar-Precure	2	8/18/30	5,134.80	1/ 5/31	C. L. McGuffer C. M. Keeler E. E. Pendleton L. A. Woodson	4,574.64	4/ 6/31	D. D. Dawson J. H. Bond J. C. Rosenberger
R. Hammer	1	8/15/30	1,351.92	1/ 5/31	O. C. Fum F. B. Jobe H. H. Haper Hula[illegible]ner	1,194.72	4/ 3/31	Ole Fum Neal Conley W. J. Riggle
R. Hammer	2	9/ 7/30	8,237.28	1/ 6/31	O. C. Fum F. B. Jobe J. R. Holder	6,916.80	4/ 8/31	O. H. Wolfe Lee Stevens Neal Conley
M. Haindl	1	8/28/30	3,615.60	1/ 4/31	I. H. Terhume F. B. Jobe R. E. Dugger	3,049.68	4/ 6/31	O. C. Fum J. T. Ash Neal Conely
S. Hiddleston	1	2/22/30	7,781.40	1/ 9/31	Roy Thomas W. A. Wallace J. D. Brown L. O. Hardy R. C. Prosser J. A. McCall	7,026.84	4/ 3/31	Roy Thomas W. J. Barlow A. Cruger

Holmes-Gray	1	7/23/30	2,053.92	1/ 3/31	Lee Wall C. M. Keeler G. E. Salisbury	1,913.88	4/ 7/31	Stone Burris John Smith J. C. Rosenberger
[fol. 359]								
A. Huffman	1	8/ 7/30	3,862.74	1/ 7/31	Chas. Barlow E. G. Dahlgren	3,057.54	4/ 3/31	Chas. Barlow C. M. Keeler Jack Critcher
A. Huffman	2	10/25/30	3,414.28	1/ 6/31	J. M. Nixon C. M. Keeler Carey Cole J. W. Thomason	3,150.90	4/ 5/31	Chas. C. Barlow J. H. Bond J. C. Rosenberger
Ivanhoe Add	1	9/25/30	6,348.48	1/ 8/31	Roy Rose J. M. Carter	5,835.00	4/ 2/31	Geo. Jones Ed Tyree
Jennings	2	12/30/29				361.56	6/ 5/31	Earl Saulsbury B. J. Jobe
Jennings	3	1/ 6/30				4,087.20	5/19/31	T. G. Willgrube C. M. Keeler B. G. Jobe
B. Johnson	1	9/21/29	1,131.84	1/ 4/31	W. Checas J. S. Brown G. W. Alexander	1,068.96	4/ 7/31	W. H. Norwood J. Chenault J. F. Ash
B. Johnson	3	1/18/30	2,137.92	1/ 5/31	Earl Williams J. S. Brown G. W. Alexander	2,012.16	4/ 7/31	W. H. Norwood J. Chenault J. T. Ash
B. Johnson	4	5/13/30	4,423.04	1/ 5/31	G. W. Alexander J. S. Brown	4,778.88	4/ 3/31	W. H. Norwood J. Chenault W. G. Stemen
B. Johnson	5	6/22/30	3,332.64	1/ 5/31	Earl Williams J. S. Brown G. W. Alexander	3,788.52	4/ 3/31	W. H. Norwood J. Chenault W. C. Stenen
B. Johnson	6	7/ 2/30	5,250.48	1/ 4/31	B. Abrams J. S. Brown G. W. Alexander	7,136.88	4/30/31	R. E. Evans W. M. Copeland
B. Johnson	7	8/29/30	628.80	1/ 4/31	M. C. Alexander J. S. Brown G. W. Alexander	817.44	4/ 1/31	W. H. Norwood E. L. Browning

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
B. Johnson	8	8/25/30	455.88	2/24/31	W. H. Norwood E. G. Crabtree	534.48	4/11/31	W. H. Norwood C. M. Keeler J. C. Rosenberger
B. Johnson	9	10/ 6/30	2,609.52	1/ 5/31	Earl Williams J. S. Brown G. W. Alexander	2,480.88	4/ 4/31	W. H. Norwood J. G. Cartland Lee Stevem
Jones Comm.	1	3/ 8/30	18,345.24	1/ 7/31	C. N. Fritz Cash Houghton B. F. Collins	19,792.32	4/ 6/31	Lee Pennington C. M. Keeler F. G. Hiegle
Jones Comm.	2	6/ 3/30	14,190.72	1/ 8/31	C. M. Fritz B. F. Collins	13,117.08	4/16/31	Lee Pennington C. M. Keeler Jack Critcher
Jones Comm.	3	5/24/30	9,802.80	1/ 9/31	C. M. Fritz B. F. Collins	9,709.44	4/ 8/31	Lee Pennington A. E. Jones
Jones Comm.	4	9/10/30	6,581.88	1/13/31	C. M. Fritz C. M. Keeler Neal Conley	4,854.72	4/15/31	W. P. Jones A. E. Jones Jack Critcher
H. W. Jones	1	5/ 2/30	19,792.32	1/ 3/31	C. M. Fritz C. M. Keeler H. H. Farrell Neal Conley			
H. W. Jones	2	5/13/30	10,549.68	1/ 4/31	C. M. Fritz Neal Conley H. H. Farrell Roy Tatum	11,670.00	4/ 7/31	Lee Pennington O. E. Brady Virgil Swope
H. W. Jones	3	8/18/30	16,944.84	1/ 6/31	C. M. Fritz V. F. Collins	19,138.80	4/ 6/31	Lee Pennington Virgil Swope
H. W. Jones	4	9/ 6/30	2,100.60	1/ 7/31	C. M. Fritz Neal Conley	2,800.80	4/14/31	O. G. Garrett G. E. Bitler Virgil Swope
[fol. 360]								
L. Jones	1	2/22/30	2,468.04	1/ 4/31	J. S. French T. V. Butler Chas. Silvis	2,703.84	4/ 3/31	G. W. Alexander L. D. Caldwell

L. Jones	2	2/27/30	513.48	1/ 4/31	J. S. French A. H. Housewright T. B. Butler	2,754.12	4/15/31	F. S. French J. S. Whitechurch
L. Jones	3	4/13/30	3,711.06	1/ 4/31	J. S. French A. H. Housewright T. B. Butler	3,571.02	4/ 5/31	H. L. Smith Clifford Rogers I. W. Wyre
L. Jones	4	3/14/30	1,440.40	3/19/31	F. S. French A. H. Housewright	1,517.10	4/ 1/31	H. L. Smith L. D. Caldwell
L. Jones	5	4/25/30	9,476.04	1/ 4/31	J. S. French Chas. Silvis T. B. Butler	8,402.40	4/ 4/31	G. W. Alexander W. Burrell A. L. Peake
L. Jones	6	5/30/30	7,891.44	1/ 3/31	T. B. Butler Chas. Silvis W. C. Dodd	7,168.32	4/ 2/31	G. W. Alexander J. F. O'Donnell L. D. Caldwell
L. Jones	7	5/29/30	1,037.52	1/ 4/31	J. S. French T. B. Butler Chas. Silvis	1,194.72	4/11/31	G. W. Alexander W. M. Copeland
L. Jones	8	5/17/30	350.10	1/ 4/31	J. S. French A. H. Housewright T. B. Butler	420.12	4/11/31	G. W. Alexander W. M. Copeland
L. Jones	9	5/17/30	840.24	1/ 3/31	J. S. French Chas. Silvis W. C. Dodd	1,400.40	4/ 6/31	H. L. Smith Floyd Jones Frank Schankof
L. Jones	10	6/19/30	4,948.08	1/ 3/31	J. S. French Noel Chancellor Chas. Silvis	4,341.24	4/ 5/31	H. L. Smith Clifford Rogers J. W. Wyre
L. Jones	11	7/ 4/30	2,100.60	1/ 3/31	J. S. French Noel Chancellor A. H. Housewright	1,120.32	4/ 7/31	J. S. French A. S. Webb B. C. Thronbrue J. H. Bond
L. Jones	12	9/10/30	5,414.88	1/ 7/31	J. S. French J. S. Whitchurch W. W. Moore	7,095.38	4/ 6/31	H. L. Smith Floyd Jones Frank Schendof
L. Jones	13	7/25/30	30,692.64	1/ 5/31	J. S. French T. B. Butler	28,381.44	4/17/31	G. W. Alexander T. B. Butler E. L. Browning

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
L. Jones	14	7/31/30	14,984.28	1/10/31	J. S. French E. G. Dahlgren	16,618.08	4/ 7/31	H. P. Smith A. S. Webb B. C. Thornbrue J. H. Bond
Mae Knox	1	4/19/30	6,360.12	1/ 7/31	Thos. L. Powell C. M. Keeler	15,357.72	4/27/31	Thos. L. Powell C. E. Bitler
Mae Knox	2	4/14/30	8,028.96	1/ 3/31	Thos. L. Powell John Smith	6,628.56	4/ 7/31	Thos. L. Powell C. M. Keeler J. C. Rosenberger
Mae Knox	3	7/16/30	8,028.96	1/ 5/31	Thos. L. Powell C. M. Keeler J. R. Holden B. D. Biby	7,375.44	4/ 4/31	Thos. L. Powell J. C. Cartland Francis McCann
Mae Knox	4	9/ 9/30	10,759.74	1/ 8/31	Paul S. Cree O. E. Yeatts T. B. Northof	9,195.96	4/14/31	Thos. L. Powell R. J. Black B. C. Stone
Lawrence Place	1	10/15/30	37,157.28	1/ 7/31	Geo. Jones E. G. Dahlgren E. E. Pendleton L. A. Wall	43,459.08	4/ 7/31	Geo. Jones C. M. Keeler J. R. Holden E. F. Banks
Lawrence Place	2	10/ 1/30	22,313.04	1/ 4/31	E. B. Epperley E. E. Pendleton Lee Wall	23,013.24	4/13/31	Geo. Jones W. H. Vance Harry Valentine
[fol. 361]								
Lawrence Place	3	11/11/30	35,056.68	1/27/31	Everett B. Everly Earl F. Bay Harry Valentine	42,525.48	4/ 3/31	Geo. Jones E. L. Browning J. G. Cartland
M. Lawton	1	10/ 3/30	3,458.40	1/ 6/31	Martin Hopper J. T. Kelley	2,798.16	4/ 3/31	Olan Harris F. H. McCann B. C. Stone
M. Lawton	2	1/14/31	1,666.32	3/26/31	Sam W. Carey J. R. Holden	1,854.96	4/ 8/31	O. G. Garrett J. G. Cartland I. T. Hounold

Lemmon	1	10/13/30	1,727.16	1/ 4/31	C. F. Terhune F. B. Jove J. H. Hooden Claud Larke	1,330.38	4/ 1/31	C. B. Keating J. G. Cartland D. E. Foster
Lemmon	2	8/ 5/30	5,088.12	1/ 5/31	W. H. Smith F. B. Jobe Harland Troupe	4,271.22	4/ 8/31	C. B. Keating J. T. Ash B. C. Stone
Lemmon	3	12/ 2/30	2,147.28	3/12/31	H. A. Bosse B. C. Stone	1,283.70	4/17/31	C. B. Keating C. M. Keeler Stafford Rogers Virgil Swope
Lemmon	4	12/18/30	1,727.16	3/11/31	H. A. Bosse B. C. Stone	956.94	4/11/31	C. B. Keating Stafford Rogers B. C. Stone
Lemmon	5	1/21/31	.....	.....	.....	1,913.88	6/ 5/31	Chas. Davis Neal Conley Harry Valentine
Lindsey	2	7/ 4/30	5,563.88	1/10/31	Roy Rose R. E. Dugger	4,936.08	4/ 3/31	P. B. Banker C. M. Keeler D. F. Hudspeth Fred Homer
Magnolia Hgts	1	9/ 8/30	3,874.44	1/ 7/31	P. D. Banker C. M. Keeler Lee Wall	3,244.26	4/ 6/31	Stone Burris C. M. Keeler F. H. McCann
Mid-Texas	1	8/24/30	6,539.52	1/ 6/31	J. B. Barnes W. A. Wallace Roy Thomas	5,391.96	4/ 5/31	Roy Thomas Lee Stevens Lowell Oaks
M. K. & T.	1	8/ 1/30	6,441.84	1/ 5/31	Guy Goodnob Lee Wall E. H. Jorlls	5,414.88	4/11/31	Lee Pennington Lee Wall
M. K. & T. 2	2	10/27/30	2,193.96	1/13/31	W. P. Jones Neal Conley	10,549.68	4/16/31	Lee Pennington C. M. Keeler Virgil Swope
M. K. & T.	3	10/17/30	18,858.72	1/ 3/31	J. M. Dietrich C. M. Keeler E. H. Jones Roy A. Smith	13,350.48	4/13/31	Lee Pennington Virgil Swope

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
M. K. & T.	5	11/ 7/30	24,973.80	1/ 9/31	Guy Goodnob J. E. Starkes J. C. Hoover	26,047.44	4/ 8/31	Lee Pennington D. G. Wilson Jack Critcher
Mt. Vernon Hgts.	1	9/ 2/30	2,100.60	1/ 5/31	Roy Rose C. M. Keeler E. E. Pendleton L. A. Woodson			
Okla. City	1	12/ 4/28	.....	.....	.....	503.04	5/24/31	W. H. Norwood C. M. Keeler
Okla. State	1	6/24/30	5,784.96	1/ 6/31	Roy Kruce R. L. Irby	4,951.80	4/ 7/31	H. L. Smith J. F. O'Donnell W. L. Burrell
Okla. State	2	6/24/30	12,858.96	1/ 8/31	Roy Kruce E. G. Dahlgren Lee Wall	10,280.88	4,10/31	G. W. Alexander A. Couger Morgan Jesse L. White
[fol. 362]								
Okla. State	3	7/ 5/30	21,379.20	1/ 5/31	Russell Harris W. W. Moore	20,514.60	4/ 1/31	H. L. Smith J. L. Chenault W. M. Burrell
Okla. State	4	7/18/30	19,398.48	1/ 8/31	Roy Kruce E. G. Dahlgren Lee Wall	18,848.28	4/ 1/31	H. L. Smith W. Burrell J. L. Chenault
Okla. State	5	8/11/30	9,369.12	1/ 8/31	Roy Kruce E. G. Dahlgren Lee Wall	14,965.44	5/ 1/31	G. W. Alexander W. M. Copeland
Okla. State	6	10/11/30	2,845.32	2/11/31	Roy Kruce E. G. Dahlgren E. G. Crabtree B. A. Harroun	2,640.96	4/ 5/31	H. L. Smith J. F. Odonell W. M. Burrell
Okla. State	7	10/ 5/30	8,017.20	1/ 8/31	E. G. Dahlgren Lee Wall	7,136.88	4/ 5/31	H. L. Smith J. F. O'donnell W. M. Burrell

Okla. State	8	10/ 8/30	18,612.48	1/10/31	Roy Kruce J. L. Keys	17,747.88	4/ 2/31	H. L. Smith W. Burrell A. E. Jones
Pasadena Hgts	1	3/11/30	9,265.98	1/ 5/31	C. W. Carter B. D. Biby J. R. Holden	8,215.68	4/ 5/31	C. W. Carter Lee Stevens T. B. Northup
Pasadena Hgts	2	8/14/30	4,247.88	1/ 7/31	J. M. Nixon E. G. Dahlgren	3,734.40	4/ 6/31	C. W. Carter J. G. Cartland F. H. McCann
Pasadena Hgts	3	1/24/31	1,773.84	3/30/31	Chas. Barlow C. M. Keeler	1,773.84	4/17/31	Chas C. Barlow W. H. Vance J. T. Leachman
Pasadena Hgts	4	10/21/30	9,370.98	1/ 9/31	C. W. Carter J. L. Chenault	14,844.24	4/ 3/31	C. W. Carter C. E. Jones H. Valentine
Pasadena Hgts	5	11/ 7/30	[illegible]	[illegible]	[illegible]	840.24	4/27/31	M. M. Phillips G. E. Bitler J. T. Leachman
S. Peterson	1	12/19/29	3,395.52	1/ 7/31	G. W. Alexander J. L. Keys F. H. Briggs	3,301.20	4/ 5/31	W. H. Norwood Jess L. White A. S. Webb
S. Peterson	2	7/ 5/30	9,337.68	1/ 7/31	G. W. Alexander J. L. Keys. F. H. Briggs	11,066.88	4/ 2/31	W. H. Norwood Jess L. White
S. Peterson	3	6/30/30	23,831.40	1/ 5/31	G. W. Alexander J. S. Brown	20,593.20	4/ 6/31	W. H. Norwood J. E. Jones T. B. Butler
S. Peterson	4	7/15/30	4,527.36	1/ 5/31	G. W. Alexander J. S. Brown	3,741.26	4/ 4/31	W. H. Norwood W. G. Stevens
S. Peterson	5	7/28/30	2,861.04	1/ 5/31	Earl Williams J. S. Brown G. W. Alexander	2,672.40	4/ 5/31	W. H. Norwood J. L. White A. S. Webb
S. Peterson	6	8/11/30	13,173.36	1/ 3/31	B. E. Sutton J. L. Chenault G. W. Alexander Loyal Oaks	20,341.68	4/ 2/31	W. H. Norwood Jess White

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
S. Peterson	7	8/28/30	8,803.20	1/ 8/31	A. F. Williams J. L. Keys R. L. Irby	7,482.72	4/ 4/31	W. H. Norwood Jesse L. White W. C. Stevens
S. Peterson	8	8/27/30	4,087.20	1/ 7/31	G. W. Alexander J. L. Keys H. F. Briggs	3,159.72	4/ 6/31	W. H. Norwood J. E. Jones T. B. Butler
Phelans Add	1	9/13/30	793.56	1/14/31	Roy Rose Carl Bashara J. M. Carter	840.24	4/11/31	T. E. Dugger Fred Homer
[fol. 363]								
Phelans Add	2	10/26/30	1,820.52	1/15/31	Roy Rose J. M. Carter Carl Bashara	1,610.46	4/15/31	Lee Jones Fred Homer
W. J. Phillips	1	7/26/30	17,904.12	1/ 5/31	W. P. Jones Lee Wall	18,203.76	4/10/31	O. G. Garrett Neal Conley
A. Precure	1	5/30/30	10,082.88	1/ 3/31	W. H. Smith Early Wallace C. M. Keeler F. B. Jobe W. H. Smith	6,675.24	4/18/31	W. H. Smith W. H. Vance B. C. Stone
E. Precure	1	9/ 6/30	5,942.16	1/ 3/31	I. H. Terhune C. M. Keeler F. B. Jobe.	5,313.36	4/ 6/31	W. H. Smith J. C. Rosenberger B. W. Dykes
E. Precure	2	9/ 1/30	5,847.84	1/ 4/31	I. H. Terhune W. H. Smith F. B. Jobe R. Holden Claud Locke	7,671.36	4/ 8/31	W. H. Smith J. T. Ash J. T. Leachman
Rensimer	1	7/12/30	3,267.60	1/ 5/31	T. B. Banker C. M. Keeler E. E. Pendleton L. A. Woodson	2,520.72	4/11/31	Stone Burros Jesse Shipley

M. Reynolds	1	8/15/30	513.48	1/ 7/31	J. S. French C. W. Dearware	630.18	4/ 8/31	G. W. Alexander C. M. Keeler
Salsman	1	5/22/30	793.56	1/ 6/31	Russell Harris J. L. Keys Chas. Silvis	1,120.32	4/14/31	J. S. French J. G. Tate J. T. Leachman
Salsman	3	5/23/30	402.60	1/ 7/31	Roy Kruce Chas. Silvis C. Barron	163.38	4/21/31	J. W. Alexander J. E. Bitler K. G. Tate
Salsman	4	6/12/30	956.94	1/ 6/31	Russell Harris J. L. Keys Chas. Silvis	2,053.92	4/11/31	J. W. Alexander W. M. Coplin
Salsman	5	8/31/30	186.72	1/28/31	Roy Kruce K. G. Tate	46.68	6/ 5/31	G. W. Alexander J. T. Leachman
Spannagel	1	10/ 7/30	20,399.16	1/12/31	E. B. Everley C. M. Keeler	20,142.42	4/ 1/31	Geo. Jones W. F. Helm Paul J. Shelton
E. M. Spillman	1	6/23/30	6,231.78	1/ 4/31	C. W. Carter O. E. Yeatts C. M. Kedy B. D. Biby	5,694.96	4/ 8/31	J. M. Nixon J. L. Chenault Jesse Shipley
E. M. Spillman	2	10/22/30	7,515.48	1/ 6/31	C. W. Carter C. M. Keeler J. W. Thomason Casey Cole	6,721.92	4/ 6/31	Thos. L. Powell F. H. McCann J. C. Cartland
E. M. Spillman	4	8/30/30	2,520.72	1/10/31	C. W. Carter J. S. Brown	5,788.32	4/ 4/31	C. W. Carter C. M. Keeler
Starkey	1	8/22/30	7,954.32	1/ 5/31	J. W. Dollar F. B. Jobe Harlan Troupe	7,772.58	4/ 2/31	W. H. Smith J. C. Cartland J. C. Rosenberger
Starkey	2	9/21/30	5,344.80	1/ 6/31	S. B. Branon F. B. Jobe J. R. Holden	5,376.24	4/ 5/31	C. B. Keating L. O. Bradford Harry Valentine
M. Sudik	1	3/26/30	16,944.84	1/ 3/31	Jack Wolfenbarger Nubert McDowell W. E. Dodd	13,210.44	4/17/31	G. W. Alexander E. L. Browning J. F. Armstrong
M. Sudik	2	4/12/30	19,932.36	1/15/31	J. A. Parks B. A. Harroun	16,863.12	4/ 1/31	H. L. Smith E. W. Burns W. S. Durkee

DEFENDANT'S EXHIBIT X—Continued

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Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
M. Sudik	3	7/13/30	10,956.36	1/ 3/31	Jack Wolfenbarger.. Nubert McDowell W. C. Dodd	10,853.10	4/ 4/31	G. W. Alexander. W. S. Durkee E. W. Burns
M. Sudik	4	6/27/30	13,537.20	1/10/31	J. S. French..... E. G. Dahlgren Chas. Silvis	14,564.16	4/ 7/31	J. S. French Jess L. White J. H. Bond
M. Sudik	5	7/ 8/30	233.40	1/ 6/31	J. S. French..... W. W. Moore	163.38	4/14/31	Tracy Hembree A. S. Webb Arthur Christofferson
M. Sudik	6	10/13/30	18,321.90	1/ 6/31	J. S. French..... W. W. Moore	17,084.88	4/ 1/31	H. L. Smith W. S. Durkee E. W. Burns
M. Sudik	7	7/ 5/30	6,768.60	1/ 4/31	Jack Wolfenbarger.. B. C. Thornbrue W. E. Dodd	6,068.40	4/ 4/31	G. W. Alexander W. S. Durkee E. W. Burns
M. Sudik	8	7/13/30	15,964.56	1/ 4/31	Jack Wolfenbargar.. B. C. Thronbrue W. C. Dodd	14,214.06	4/ 2/31	G. W. Alexander W. S. Durkee E. W. Burns
M. Sudik	9	7/17/30	15,917.88	1/ 7/31	J. S. French..... W. W. Moore	20,259.12	4/ 6/31	G. W. Alexander A. Christofferson E. W. Burns
M. Sudik	10	8/ 8/30	14,844.24	1/ 4/31	Jack Wolfenbarger.. B. C. Thornbrue W. C. Dodd	14,074.02	4/ 2/31	G. W. Alexander W. S. Durkee
Terrace Lawn	1	2/18/31	.....	.....	.....	41,451.84	5/ 2/31	Fred Ingram C. M. Keeler
E. Theimer	1	3/ 5/30	14,890.93	1/ 3/31	J. W. Arnold..... J. M. Dietrich C. M. Keeler Roy A. Smith	13,817.28	4/ 1/31	Lee Pennington E. F. Banks Early Wallace
E. Theimer	2	3/22/30	233.40	1/11/31	J. E. Findley..... C. M. Keeler	373.44	4/15/31	O. G. Garrett Virgil Swope B. C. Stone
E. Theimer	3	6/ 1/30	12,556.92	1/ 6/31	J. W. Arnold..... J. T. Kelley	12,043.44	4/ 4/31	J. W. Arnold Virgil Swope

E. Theimer	5	6/ 8/30	1,073.64	1/ 7/31	J. W. Arnold J. R. Holder	2,100.60	4/11/31	Lee Pennington W. H. Vance Virgil Swope
E. Theimer	6	8/30/30	1,400.40	1/ 8/31	J. W. Arnold J. R. Holder	1,260.36	4/ 2/31	W. B. Timmison Virgil Swope
E. Theimer	7	9/21/30	4,387.92	1/ 8/31	J. W. Arnold Neal Conley J. R. Holder	5,648.28	4/11/31	Lee Pennington W. H. Vance Virgil Swope
E. Theimer	8	11/ 2/30	1,213.68	1/ 6/31	J. W. Arnold Lloyd R. Lacy	1,447.08	4/ 8/31	O. G. Garrett F. G. Hiegle J. B. Abbott
C. Trosper	1	5/16/30	4,994.76	1/ 3/31	V. E. Seikel C. M. Keeler F. B. Jobe	10,376.04	4/ 8/31	D. D. Dawson F. H. McCann V. D. Palmer
C. Trosper	2	7/ 4/30	11,203.20	1/ 4/31	V. E. Seikel C. M. Keeler E. E. Pendleton Lee Wall	11,203.20	4/11/31	D. D. Dawson W. J. Riggle
C. Trosper	3	9/ 6/30	10,409.64	1/12/31	Geo. Jones C. M. Keeler	14,984.28	4/15/31	D. D. Dawson W. M. Coplin Jack Critcher
C. Trosper	4	8/23/30	9,649.42	1/19/31	Geo. Jones J. L. Chenault C. B. Jarrel	5,928.36	4/18/31	D. D. Dawson Stafford Rogers B. C. Stone
[fol. 365]								
C. E. Trosper	1	5/12/30	9,149.28	1/ 3/31	S. B. Branon C. M. Keeler F. B. Jobe	8,495.76	4/ 5/31	J. W. Dollar W. F. Riggle H. Valentine
E. Trosper	1	6/20/30	9,476.04	1/ 7/31	Earl Saulsbury C. M. Keeler E. E. Pendleton Lee Wall	9,195.96	4/ 3/31	Earl Saulsbury E. G. Jones J. E. Jones H. Valentine
E. Trosper	2	7/14/30	7,375.44	1/11/31	Earl Saulsbury R. E. Dugger	9,592.94	4/10/31	L. L. Marlow J. P. Chenault B. C. Stone

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
H. Trosper	1	6/13/30	14,284.08	1/ 3/31	F. B. Jobe C. M. Keeler Earl Saulsbury	8,309.04	4/ 8/31	L. L. Marlow W. M. Coplin
H. Trosper	2	8/ 2/30	7,087.20	3/19/31	Geo. Graham C. C. Spiers	10,563.84	4/ 7/31	J. McKinney J. G. Cartland W. M. Coplin
H. Trosper	3	8/ 1/30	6,581.88	1/19/31	Earl Saulsbury R. E. Dugger J. S. Brown	5,741.64	4/11/31	A. Cross C. M. Keeler W. J. Riggle
H. Trosper	4	9/11/30	7,885.92	1/12/31	Earl Saulsbury C. M. Keeler	9,592.74	4/ 5/31	L. L. Marlow J. Chenault F. McCann
H. Trosper	5	10/ 8/30	2,287.32	1/ 6/31	Earl Saulsbury C. M. Keeler E. E. Pendleton	4,341.24	4/17/31	L. L. Marlow W. H. Vance B. C. Stone
H. Trosper	6	11/16/30	4,464.48	1/11/31	E. C. Conway R. E. Dugger	2,986.80	4/ 8/31	Joe McKinney J. G. Cartland W. M. Coplin
H. Trosper	7	1/31/31	1,902.42	3/19/31	Geo. W. Brown H. Valentine	1,414.80	5/13/31	D. C. Cooper B. C. Stone
L. Trosper	1	2/17/30	6,602.40	1/ 7/31	John Neal E. G. Dahlgren	4,370.16	4/ 6/31	Lee Pennington I. T. Hounnold B. C. Stone
L. Trosper	2	6/30/30	786.00	1/ 8/31	W. C. Jones C. M. Keeler			
P. Trosper	1	3/ 1/30	1,021.80	2/ 6/31	C. A. Wiles I. E. Atkinson L. E. George	565.92	4/14/31	Arthur Cravb S. P. Spaulding B. C. Stone
Trosper-Hughes	1	6/ 6/30	5,648.28	1/ 6/31	W. H. Smith F. B. Jobe J. R. Holden	7,235.40	4/17/31	W. H. Smith C. M. Keeler Stafford Rogers J. T. Leachman B. C. Stone

Trosper	2	11/24/29	11,413.26	1/ 4/31	O. H. Murphy C. M. Keeler T. B. Nathol	12,230.16	4/ 2/31	J. M. Nixon W. C. Stever T. B. Nathol
Trosper	3	12/ 9/29	797.04	1/ 8/31	J. M. Nixon C. M. Keeler B. D. Biby O. E. Yeatts	1,163.28	4/18/31	G. A. McIntyre Stafford Rogers J. T. Leachman
Trosper	4	5/24/29	6,728.16	1/ 5/31	C. L. Jady J. R. Holden B. D. Biby	7,463.44	4/ 8/31	G. A. McIntyre J. L. Chenault F. H. McCann
Trosper	6	2/ 7/30	1,194.72	1/13/31	E. L. Jady E. G. Dahlgren W. A. Griffin	943.20	4/15/31	O. Humphry G. E. Bitler J. T. Leachman F. B. Jobe
Trosper	7	1/ 9/31	471.60	1/ 9/31	J. M. Nixon J. S. Brown O. E. Yeatts	1,326.16	4/ 1/31	E. L. Jady W. E. Caudill Early Wallace A. R. Wentworth
[fol, 366]								
Trosper	8	1/31/30	4,411.26	1/ 5/31	O. H. Murphy C. M. Keeler J. R. Holden B. D. Biby	5,333.16	4/ 1/31	O. Humphrey A. R. Wentworth W. E. Caudill Early Wallace
Trosper	9	2/ 5/30	4,096.17	1/ 6/31	O. H. Murphy A. M. Murphy C. M. Keeler Casey Cole	3,267.60	4/ 6/31	O. Humphrey W. B. Stone I. T. Hounold
Trosper	10	2/ 3/30	6,162.24	1/ 3/31	C. L. Jady J. Smith Glen Walton	7,632.18	4/14/31	O. Humphry C. M. Keeler F. B. Jboe W. M. Coplin
Trosper	11	5/27/30	5,414.88	1/ 7/31	O. H. Murphy C. M. Keeler	4,653.12	4/11/31	D. Humphry Jess Sipley B. C. Stone
Unsel-Krager	1	3/ 4/30	9,662.76	1/ 3/31	Roy Thomas W. A. Wallace A. F. Sweeney	9,242.64	4/ 1/31	Roy Thomas A. H. Otis J. C. Shaffer

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Unsel-Krager	2	3/20/30	8,962.56	1/ 5/31	W. A. Wallace Roy Thomas J. L. Chenault J. A. McCall	8,052.30	4/ 4/31	J. M. Akins C. M. Keeler L. O. Bradford T. E. Rogers
Unsel-Krager	3	4/ 5/30	6,263.82	1/ 3/31	Roy Thomas W. A. Wallace A. F. Sweeney	6,185.10	4/ 5/31	Roy Thomas J. C. Cartland C. H. Foster T. E. Rogers
Mary Unsell	1	4/ 9/30	5,963.40	1/ 3/31	Roy Thomas W. A. Wallace A. S. Sweeney	5,741.64	4/ 4/31	J. M. Akins J. Chenault L. O. Bradford J. C. Bateman
Mary Unsll	2	5/31/30	3,932.76	1/ 3/31	W. A. Wallace Roy Thomas A. F. Sweeney	3,594.36	4/ 5/31	Roy Thomas J. G. Cartland
Mary Unsell	3	8/22/30	2,870.82	1/ 6/31	J. A. McCall J. A. Barnes Roy Thomas W. A. Wallace	1,307.04	4/ 6/31	Roy Thomas Jess L. White
Mary Unsell	4	9/ 2/30	15,544.44	1/ 6/31	J. A. McCall Claud Larks Roy Thomas F. W. Hectman			
Mary Unsell	5	9/16/30	1,657.14	1/ 6/31	J. A. McCall Claud Larke Roy Thomas F. W. Hectman	1,283.70	4/ 8/31	Roy Thomas C. H. Foster Jess L. White
Mary Unsell	6	8/31/30	4,119.48	1/ 5/31	Roy Thomas W. A. Wallace J. Chenault J. A. McCall R. C. Prosser	2,917.50	4/ 2/31	Roy Thomas J. L. Chenault J. A. McCaa

Viewpoint	1	9/22/30	27,961.32	1/ 9/31	W. H. Smith J. Chenault R. E. Dugger	25,814.04	4/ 1/31	W. O. Hiffin B. B. Palmer
Viewpoint	2	2/16/31	.....	.....	.....	39,864.72	4/27/31	Roy Rose W. M. Coplin
Viewpoint	3	11/16/30	61,664.28	1/16/31	W. H. Smith C. M. Keeler Chas. Silvis	68,386.20	4/ 4/31	H. H. Bosse Fred Homer J. E. Hall
Viewpoint	4	2/12/31	.....	.....	.....	50,321.04	4/22/31	J. W. Smith C. M. Keeler R. J. Black
Weber-Wall	1	11/24/30	3,552.72	2/18/31	W. B. Roberson C. M. Keeler W. E. Pickle O. E. Yeatts	3,332.64	4/ 7/31	J. M. Dixon C. M. Keeler W. Coflin J. R. Holdin
[fol. 367]								
Werner-Farley	1	4/17/30	5,368.10	1/10/31	L. D. Todd C. M. Keeler Chas. Lowery	4,831.38	4/ 6/31	Roy Thomas J. Chenault A. E. Jones
Werner-Farley	2	4/14/30	.....	.....	.....	2,450.70	4/24/31	Roy Thomas H. M. Rice G. E. Bitler
Werner-Farley	3	4/28/30	3,501.00	1/10/31	L. D. Todt C. M. Keeler Chas. Lowery	3,314.28	4/ 6/31	Roy Thomas J. Chanault J. E. Jones
Werner-Speegle	1	12/15/29	2,012.16	1/ 3/31	L. G. Toby Virgil Harold	2,067.18	4/ 7/31	Roy Thomas H. Valentine
Werner-Speegle	2	5/21/30	1,351.92	1/ 4/31	L. D. Toby B. D. Ramage	1,179.00	4/14/31	Roy Thomas J. R. Holden Floyd Jones
Werner-Speegle	3	4/29/30	2,200.80	1/ 3/31	L. D. Toby Virgil Harold	2,342.28	4/ 7/31	Roy Thomas H. Valentine
Mary Warden	1	4/ 7/30	6,721.92	1/ 8/31	Wylie Pitchford C. M. Keeler Chas. Lowery Noel Chancellor	6,418.50	4/ 2/31	Roy Thomas J. Chenault F. McCann J. A. McCaa

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Watters	2	12/ 2/30	1,949.28	1/ 5/31	Earl Williams J. S. Brown G. W. Alexander	2,122.20	4/ 8/31	W. H. Norwood J. E. Jones Virgil Swope
Watters	4	8/ 4/30	4,716.00	1/ 8/31	G. W. Alexander J. B. Barnes.	5,627.76	4/ 2/31	W. H. Norwood A. E. Jones H. Valentine
Watters	5	7/30/30	2,389.44	1/ 4/31	J. S. Brown Ed. Kloptenstein L. O. Hardy G. W. Alexander	2,389.44	4/ 7/31	W. H. Norwood J. Stevens B. C. Stone
Watters	6	8/ 5/30	4,810.32	1/ 5/31	Earl Williams J. S. Brown G. W. Alexander	5,156.16	4/ 5/31	W. H. Norwood Jack Woolsey I. T. Hounold
J. Wheeland	1	9/29/30	12,167.28	1/ 4/31	S. B. Branon L. B. Holland R. E. Dugger J. R. Holden	16,568.88	4/ 4/31	C. D. Scott W. J. Riggle J. T. Leachman
Wheeler	2	1/ 3/30	2,923.92	1/12/31	Odessie Estes E. G. Dahlgren	3,018.24	4/18/31	O. Humphrey W. M. Coplin Virgil Swope
Wheeler	3	2/27/30	2,233.24	3/ 4/31	Arthur Julian B. C. Stone	3,018.24	4/16/31	Arthur Cross C. M. Keeler B. C. Stone
Wilkie-Anderson	1	3/25/30	377.28	1/ 5/31	Earl Williams J. S. Brown	251.52	4/14/31	W. H. Norwood W. M. Coplin
Wilkie-Anderson	3	8/20/30	1,383.36	1/ 5/31	G. W. Alexander J. S. Brown	1,854.96	4/15/31	W. H. Norwood A. R. Wentworth F. J. Jobe
E. Williams	1	8/27/30	6,288.00	1/ 9/31	J. M. Akins J. L. Chenault J. A. McCall	5,407.68	4/ 6/31	Roy Thomas J. L. White
W. Canfield	1	12/18/30	2,515.20	1/ 5/31	L. D. Toby J. S. Brown	3,332.64	4/ 7/31	Roy Thomas Lee Sevens B. C. Stone

W. Canfield	2	4/15/30	3,819.96	1/ 5/31	L. D. Toby J. S. Brown	4,385.88	4/14/31	Roy Thomas Floyd Jones J. R. Holder
[fol. 368]				Johnson, Dabney & Patton				
Foote	1	2/20/30				18,769.68	5/ 1/31	A. O. Lewis C. E. Long W. H. Marshall
				Jones Bros.				
Patterson	1	12/27/30				31,086.00	4/11/31	C. O. Perkins C. E. Long
Sullivan	1	8/10/30	18,238.20	1/10/31	H. B. Jones A. H. Housewright J. E. Findley	18,144.00	4/ 1/31	H. B. Jones R. H. Baird Neil Conley
				J. E. Mabee				
Mills	1	4/16/31				50,313.90	6/ 1/31	D. B. Edwards L. G. Maxwell P. H. Sullins
Reynolds	1	2/ 6/31				43,148.94	4/ 8/31	Edwards Mabee C. M. Keeler C. E. Long S. S. Hahn
Schillings	1	9/25/30	14,584.50	2/ 7/31	E. F. Stevens C. B. Wilcoxen Lon Rice	13,370.40	4/18/31	I. B. Woodson W. H. Vance C. E. Long
R. Smith	1	9/16/30	59,904.00	1/ 5/31	E. J. Gracey C. M. Keeler H. H. Haper Ted Greene	60,468.00	4/ 2/31	Jack Critcher G. W. Wilken J. D. Abbot

DEFENDANT'S EXHIBIT X—Continued

R. A. McArthur

Lease	Well No.	Date well came in	January pot.	Date	Witnesses	April pot.	Date	Witnesses
Armour	1	1/ 6/31	55,967.92	3/13/31	C. G. Kibben J. R. Clark C. J. Fisher	55,249.68	4/ 5/31	W. C. Noll Jack Kutcher
					Mid-Kansas Oil & Gas Co.			
Browning	2	8/15/30	471.00	1/ 7/31	T. E. Kison H. L. Bufkin	550.08	4/ 9/31	E. G. Crabtree C. E. Long A. D. Kison
Fortson	1	7/22/29	457.50	1/ 7/31	Mearl Mays H. L. Bufkin	2,034.54	4/ 1/31	Mearl Mays E. G. Crabtree
Fortson	4	11/17/29	274.50	1/ 9/31	Mearl Mays C. G. Crabtree			
Mollman	1	11/26/29	2,488.50	1/ 5/31	Virgil Harrold T. R. Elliott	2,172.71	4/ 1/31	Virgil Harrold F. J. O'Connell
Mollman	2	4/ 1/30	8,473.50	1/ 6/31	Virgil Harrold J. R. Elliott	9,226.16	4/ 2/31	Virgil Harrold F. J. Hirgle
Mollman	3	4/30/30	5,370.00	1/ 4/31	Virgil Harrold J. R. Elliott	4,874.58	4/16/31	Virgil Harrold Stafford Rogers
Mollman	4	9/13/30	6,138.00	1/ 5/31	Virgil Harrold J. R. Elliott	5,071.92	4/ 2/31	Virgil Harrold J. J. Heigle
Trosper Brown	1	7/ 1/30	864.00	1/10/31	J. E. Adkinson F. H. Briggs	630.00	4/ 2/31	J. E. Adkinson E. G. Crabtree J. L. Baker
					Minnehoma Oil Co.			
Pugh	1	9/17/30	65,271.12	1/11/31	J. M. Sterritt J. M. Carter K. S. McNabb J. W. Thomson Lloyd R. Looey	61,474.56	4/ 1/31	J. M. Sterritt R. E. Dugger Roy Covington

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Oils Incorporated

Hathaway	1	3/30/30	.....	.....	.....	50,187.66	4/ 8/31	J. R. Weil A. R. Wentworth J. M. Sterritt
Mooreland	1	10/13/30	5,985.00	2/ 5/31	J. R. Weil E. G. Dahlgren			
Ross	1	10/ 4/30	56,643.24	1/ 6/31	Burk Mullins R. L. Oslerhour	55,329.42	4/ 4/31	J. R. Weil W. C. Tyner Melvin Rogers
Thompson	1	3/ 9/31	.....	.....	.....	56,601.90	4/14/31	J. Critcher J. R. Weil E. L. Browning
Ashcan	1	1/26/31	63,314.94	3/28/31	L. B. Holland Neal Conley L. C. Rice	63,782.22	4/ 2/31	L. C. Rice J. Critcher L. B. Holland R. E. Dugger D. Y. Wilson Neal Conley Jewel Ross Chas. T. Lewis

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Phillips Petroleum Co.

Ball	1	12/16/30	14,284.68	2/25/31	L. B. Holland C. E. Long	12,988.80	4/ 1/31	R. E. Clark J. E. Jones
Black	1	1/28/31	53,951.04	3/26/31	Earl Griffin Paul Sullins	53,074.68	4/ 1/31	A. C. O'Brien Earl Griffin N. W. Long
Blazer	1	2/18/31	.....	.....	.....	49,601.88	4/ 6/31x	B. W. Dykes B. M. Spatt W. E. Stevens
Boulting House	1	3/ 9/31	.....	.....	.....	49,887.36	5/ 1/31	Ed. Jones L. B. Holland U. W. Long
Burt	1	1/14/31	20,624.64	3/28/31	C. B. Wilcoxin C. E. Long J. R. Holden	20,756.00	4/ 3/31	J. T. Leachman K. K. Kennedy S. P. Spalding L. C. Rice

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Carey	1	9/19/30	2,542.32	1/19/31	Everett H. Ball E. G. Dahlgren L. D. Chatlan	1,947.00	4/ 6/31	E. C. Ball E. L. Browning J. S. Wood
Ciger	1	10/21/30	56,220.36	1/11/31	J. P. Stevens R. E. Duger A. J. Hannah L. A. Woodson	60,611.16	4/ 6/31	L. B. Holland W. M. Coplin J. T. Leachman R. Schoonover
Clayton	1	1/ 2/31	32,351.76	3/11/31	C. B. Wilcoxin Lon C. Rice Troy Ware	30,900.72	4/ 4/31	K. K. Kennedy S. P. Spalding C. E. Long Ed. Jones
Crean	1	3/13/31	.....	.....	.....	25,475.04	5/18/31	Earl Griffin J. T. Leachman C. E. Long
Danewood	1	3/11/31	.....	.....	.....	58,570.98	5/18/31	R. M. Harp J. T. Leachman C. E. Long
Davis	1	3/ 3/31	.....	.....	.....	58,461.42	4/28/31	L. B. Holland C. E. Long Mr. Edwards A. H. Wilkinson T. T. Rogers
Day	1	10/14/30	61,599.36	1/28/31	L. B. Holland E. G. Dahlgren L. C. Rice	59,949.36	4/ 1/31	L. B. Holland R. E. Duggan E. L. Welch
Hankins	1	12/ 4/30	3,968.10	2/20/31	Earl Griffin C. E. Long O. E. Yeatts	4,616,16	4/ 6/31	E. Giff C. R. Wentworth Harry Valentine
Harrell	1	9/ 7/30	3,138.48	1/11/31	Earl Griffin A. J. Hannah L. A. Woodson	1,946.28	4/ 7/31	E. Giff C. E. Long Jack Cutcher J. T. Thompson

Hatcher	1	8/12/30				3,744.96	5/13/31	Earl Griffin Neal Connely C. E. Long W. Y. Carthers
Hercheck	1	8/12/30				48,988.86	4/ 7/31	B. M. Spratt L. O. Bradford Ed. Jones
Higgins	1	1/16/31	47,250.00	3/16/31	V. M. Spratt Joe Hamilton Carl Franks Paul Sullins	46,424.10	4/ 2/31	V. M. Scott C. H. Foster J. S. Wood
[fol. 371]								
Highland	1	1/ 8/31	32,917.68	3/25/31	V. M. Spratt L. C. Rice	33,030.72	4/ 3/31	D. Edwards L. C. Rice Ed. Jones
Johnson	1	3/31/31				24,672.48	6/11/31	J. P. Stevens J. T. Leachman
Jones	1	8/ 3/30	3,043.92	1/ 7/31	Everett Ball R. E. Duger H. C. Boltz	3,077.64	4/ 2/31	E. C. Ball Dewey Kelley Paul Phetton
King	1	11/22/30	50,775.78	1/30/31	L. B. Holland L. C. Rice O. E. Yeatts	46,801.44	4/ 2/31	K. K. Kennedy R. E. Mangum C. E. Randolph
Kleinegger	1	2/27/31				43,582.56	5/ 2/31	L. B. Holland C. E. Long A. O. Lewis
Lybrand	1	9/23/30	56,949.12	1/16/31	E. Griffin A. J. Hannah F. S. Fox	52,392.84	4/ 2/31	A. N. Wilkinson R. E. Clark O. E. Brady L. A. Fisher J. M. Phillips
Mc Ausland	1	1/12/31	53,100.06	2/24/31	V. M. Spratt J. R. Holder	52,423.80	4/ 1/31	E. E. Mc Intyre V. M. Spratt Paul H. Sullins J. R. Holder J. R. Irwin

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witnesses	April pot.	Date	Witnesses
Mosey	1	3/19/31	.....	.....	.....	31,409.64	4/13/31	Raymond M. Hayes R. C. Miller J. T. Leachman L. C. Rice
Nunn	1	2/18/31	.....	.....	.....	70,234.26	4/14/31	E. Griffin L. C. Rice W. W. Long
Othenin	1	4/ 2/31	.....	.....	.....	60,276.48	6/12/31	L. B. Holland C. M. Keller J. L. Cline
Rallen	1	10/17/30	23,517.60	1/17/31	Earl Griffin..... E. G. Dahlgren Paul Sullins	23,905.74	4/ 3/31	Earl Griffin C. E. Long J. H. Bond W. S. Tyre
Robb	1	3/18/31	.....	.....	.....	11,371.98	5/23/31	V. M. Spratt J. T. Leachman D. Edwards Paul Sullins
Roden	1	10/17/30	61,772.88	1/ 7/31	J. T. Stevens..... R. E. Duger H. C. Bolts	58,151.58	4/ 3/31	L. B. Holland R. E. Duger W. S. Tyer W. W. Bodine
Roose	1	12/ 8/30	8,982.00	2/24/31	Everett H. Ball.... Karl Bashara	8,652.60	4/ 4/31	E. C. Ball E. F. Bank J. R. Holden
Schillings	1	3/24/31	.....	.....	.....	35,231.88	6/ 4/31	V. M. Spratt Paul Sullins
Temple	1	3/25/31	.....	.....	.....	45,215.22	6/ 4/31	Earl Griffin R. E. Steel N. W. Long
Unruh	1	12/21/30	54,248.22	1/22/31	L. B. Holland..... E. G. Dahlgren K. S. Mc Nabb	57,557.88	4/ 4/31	E. Giff C. R. Welch J. H. Bond

Velt	1	10/ 4/30	11,880.06	1/ 8/31	Everett Ball Karl Bashara	11,272.80	4/ 6/31	C. E. Ball E. L. Browning S. W. Lord
[fol. 372].								
Walnut Grove	1	2/ 3/31	61,913.28	3/11/31	L. B. Holland Charles Silvin L. C. Rice	63,813.12	4/ 4/31	L. B. Holland R. E. Duger J. B. Baker
Winsted	1	3/15/31	.....	.....	.....	19,014.78	3/ 7/31	V. M. Spratt C. E. Long J. T. Leachman Lee Wall
				Plains Petroleum Co.				
Sadler	1	9/13/30	.....	.....	.....	5,292.00	4/13/31	J. R. Irvin J. B. Abbot J. H. Burgett J. T. Thompson
				Prairie Oil & Gas Co.				
Hiddleston	1	7/21/29	270.00	1/ 6/31	Chas. Cross B. A. Horn	972.24	5/14/31	Geo. Lewis C. E. Long B. H. Horn
Hiddleston	3	11/ 1/29	4,860.00	3/ 4/31	Chas. Cross B. F. Horn	6,510.36	4/ 1/31	Sam La Baron W. M. Coplin Harry Valentine
Hiddleston	4	12/31/29	390.00	2/ 3/31	Chas. Cross B. F. Horn	595.68	4/ 2/31	Sam La Baron O. B. Good A. Cangin
Hiddleston	5	1/ 7/30	1,110.00	1/ 7/31	Sam La Baron B. A. Horn	1,750.92	4/ 4/31	G. H. Lee E. L. Annon A. Canagor
Hiddleston	6	2/20/30	4,830.00	1/ 6/31	Sam La Baron B. F. Horn	5,164.92	4/ 1/31	C. V. Vanlandingham Chas. Cross O. V. Good

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witnesses	April pot.	Date	Witnesses
Hiddleton	7	2/20/30	2,310.00	1/ 7/31	Chas. Cross B. F. Horn	3,127.26	4/ 2/31	Sam La Baron O. B. Good
Hiddleston	9	6/19/30	960.00	1/ 5/31	Chas. Cross B. F. Horn	1,375.02	4/ 4/31	E. L. Annon A. Congor C. V. Vanlandingham H. M. Hubert
Sigmon	1	5/16/30	6,330.00	1/ 4/31	Chas. Cross J. L. Chenault	3,823.68	4/18/31	Sam La Baron G. E. Bittler Roy Little J. F. Armstrong
Sigmon	2	9/ 4/30	4,260.00	1/15/31	Chas. Cross Clay Young	4,292.88	4/ 2/31	Sam La Baron A. R. Wentworth Arthur Christofferson
Sigmon	3	9/25/30	2,250.00	1/ 5/31	Chas. Cross Ed Bills	3,262.44	4/ 3/31	Chas. Cross C. R. Wentwroth Austin Allan J. H. Parks A. Christofferson
Sigmon	4	8/ 4/30	6,060.00	1/ 4/31	Chas. Cross J. L. Chenault	6,231.18	4/ 1/31	Chas. Cross S. Rogers A. Christofferson
Sigmon	5	8/23/30	3,090.00	1/ 7/31	Chas. Cross Ed Bills	2,442.24	4/ 3/31	Chas. Cross C. R. Wentworth Austin Allen J. H. Parks A. Christofferson
Sigmon	6	9/ 4/30	10,230.00	1/ 6/31	Chas. Cross Ed Bills	9,714.96	4/ 4/31	Chas. Cross A. R. Wentworth R. Harris
Sigmon	7	8/21/30	2,940.00	1/ 6/31	Chas. Cross Edd Bills	2,319.36	4/ 2/31	Chas. Cross A. Christofferson A. R. Wentworth

Reynolds & Unruh								
Evans	1	6/21/30	24,004.92	1/ 7/31	G. J. Greene B. F. Collins A. E. Jones	24,831.06	4/ 5/31	E. J. Greene A. E. Jones
[fol. 373] **Russell Petroleum Co.**								
Roosevelt	1	11/23/30	11,753.88	2/28/31	C. E. Long	14,663.28	4/10/31	R. L. Martin C. M. Keeler Lee Wall J. H. Bond A. C. Garrison
J. C. Shaffer, Incorporated								
Arnold-Baker	1	6/20/30	11,101.50	1/ 5/31	Ralf Calahan A. H. Housewrite	12,614.16	4/ 3/31	C. B. Bolt Neal Conely
Childs	1	9/13/29	6,145.44	1/ 7/31	Ralph Calahan R. L. Oslerhout R. L. Alexander	4,447.68	4/ 8/31	B. D. Bilby W. H. Vance J. M. Akins
Cook-Cunningham	1	3/27/30	9,634.50	1/ 5/31	Ralph Calahan A. H. Housewrite	13,164.42	4/ 2/31	B. D. Biby W. S. Tyre E. G. Dobson V. E. Getton
Cook-Cunningham	2	6/10/30	11,964.54	1/ 7/31	Ralph Calahan K. E. Stell J. M. Carter	11,437.38	4/ 2/31	V. D. Biby W. S. Tyer E. L. Datser Mohin Rogers V. E. Jetton
Giles	1	4/21/31	.....	.....	.....	41,540.88	6/17/31	J. R. Calahan C. M. Keeler J. C. Rosenberger
Shell Petroleum Corp.								
Egermeir	1	8/ 6/30	3,709.92	1/ 2/31	George Kingland E. G. Dahlgren	3,945.72	4/ 1/31	George Kingland W. C. Stevens J. M. Akins

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witnesses	April pot.	Date	Witnesses
Petty	1	8/31/29	2,043.60	1/28/31	Peter Horn C. E. Long	1,383.36	4/ 2/31	George Kingland Jess Shipley C. V. Vandandingham T. D. Butler J. R. Wolf
Petty	2	3/ 9/30	78.60	1/10/31	Peter Horn T. B. Butler W. J. Barlow	102.18	4/28/31	George Kingelin G. E. Bitler C. E. Long J. R. Wolfe
Petty	3	4/17/30	2,295.12	1/28/31	Peter Horn C. E. Long	2,326.56	4/28/31	George Kingelin G. E. Bitler C. E. Long J. R. Wolfe
Petty	4	12/ 8/29	1,289.04	2/17/31	Peter Horn E. G. Dahlgren	.....	.....	.....
Petty	5	12/ 2/29	172.92	1/26/31	George Kingelin E. G. Dahlgren	101.04	4/ 1/31	George Kingelin L. O. Bradford G. R. Wolfe V. V. Valandingham
Petty	6	1/ 2/30	1,133.28	3/ 5/31	George Kingelin	1,351.92	4/ 1/31	George Kingelin L. O. Bradford. J. R. Wolfe C. V. Vanlandingham
Petty	7	1/23/30	786.00	1/ 2/31	George Kingelin E. G. Dahlgren	943.20	4/ 2/31	Peter Horn R. C. Thornnur C. V. Vandaningham J. R. Wolfe
					Sinclair Oil & Gas Co.			
Donnell	1	8/ 9/30	7,218.00	1/ 8/31	Orin Goodwin E. G. Crabtree	5,985.66	4/ 7/31	S. G. Oakes W. C. Stevens

[fol. 374]

Kinter		7	5/17/30				78.60	4/10/31	Jesse Shaffer H. M. Herbert
School Land	54	2	3/26/30	3,974.64	1/ 3/31	S. G. Oakes U. G. Wand	3,254.16	4/ 2/31	S. G. Osser F. V. Jobe
"	"	3	3/21/30	3,407.28	1/ 5/31	S. G. Oakes C. C. Harrison	2,909.92	4/ 1/31	S. G. Oakes J. V. Jobe
"	"	4	6/ 4/30	9,726.36	1/ 6/31	S. G. Oakes Clifford Wiles	6,416.40	4/ 3/31	Key F. Haas F. V. Jobe
"	"	6	7/12/30	7,421.50	1/ 7/31	S. G. Oakes J. C. Hurt, Jr.	7,800.24	4/ 4/31	S. G. Oakes F. V. Jobe
"	"	7	6/15/30	3,606.94	1/ 5/31	O. Goodwin John McFadden	2,284.08	4/ 6/31	S. G. Oakes F. D. Jobe
"	"	8	6/ 9/30	1,691.52	1/ 5/31	S. G. Oakes Jack Wolfenberger	1,407.60	4/ 7/31	S. G. Oakes J. V. Jobe
"	"	9	6/15/30	6,075.60	1/ 3/31	S. G. Oakes O. P. Mc Intyre	4,836.00	4/ 5/31	S. G. Oakes F. V. Jobe
"	"	10	6/23/30	21,880.98	1/ 3/31	S. G. Oakes Clifford Wiles	16,656.00	4 /2/31	S. G. Oakes F. V. Jobe
"	"	11	6/18/30	9,481.32	1/ 8/31	S. G. Oakes J. C. Hurt, Jr.	5,132.54	4/ 5/31	S. G. Oakes F. V. Jobe
"	"	12	6/ 9/30	20,932.32	1/ 6/31	Orvey Goodwin Clifford Wiles	17,063.52	4/ 1/31	S. G. Oakes F. V. Jobe
"	"	13	6/19/30	10,298.28	1/ 3/31	S. G. Oakes A. Alexander	8,058.24	4/ 4/31	T. J. Hoas F. V. Jobe
"	"	14	6/25/30	14,127.00	1/ 5/31	Orvey Goodwin Roy Krouse	11,548.56	4/ 4/31	S. G. Oakes F. V. Jobe
"	"	15	7/ 2/30	9,311.04	1/ 7/31	J. F. Hoas Clifford Wiles	9,294.72	4/ 5/31	S. G. Oakes J. D. Swank
"	"	16	7/ 4/30	10,238.16	1/ 6/31	S. G. Oakes A. E. Kole	9,548.40	4, 3,31	J. F. Hoas F. V. Jobe
"	" 67	1	3/31/30	9,443.58	1/ 6/31	S. G. Oakes J. C. Hurt	12,536.40	4/22/31	S. G. Oakes W. H. Vance
"	"	2	6/11/30	1,000.56	1/ 8/31	S. K. Oakes Roy Wildey	1,969.92	4/ 8/31	S. G. Oakes F. V. Jobe
"	"	3	6/12/30	7,658.88	1/ 7/31	S. G. Oakes J. C. Hurt, Jr.	8,396.16	4/ 7/31	J. F. Hoas F. V. Jobe

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witnesses	April pot.	Date	Witnesses
School Land	5	8/19/30	24,628.68	1/ 8/31	S. G. Oakes Clifford Wiles	20,689.92	4/ 6/31	S. G. Oakes F. V. Jobe
" " 69	1	7/16/30	21,107.94	1/ 7/31	S. G. Oakes Clifford Wiles	17,164.32	4/ 7/31	J. F. Hoas F. V. Jobe
" "	2	10/21/30	21,761.94	1/ 9/31	Orvey Goodwin J. C. Hurt, Jr.	19,730.64	4/ 6/31	S. G. Oakes J. V. Jobe
" "	3	6/12/30	15,362.28	1/ 9/31	Orvey Goodwin J. C. Hurt, Jr.	13,942.56	4/ 8/31	S. G. Oakes F. V. Jobe
Stamper	2	11/10/29				78.60	4/10/31	S. G. Oakes Stafford Rogers
Vencl	1	3/12/30	2,406.72	1/ 3/31	A. E. Nicholson E. G. Crabtree	7,041.54	4/ 2/31	S. G. Oakes A. R. Anderson
"	2	3/10/30	1,068.20	1/ 4/31	A. E. Nicholson E. G. Crabtree	1,157.52	4/ 3/31	Jessie Schaffer A. R. Anderson
[fol. 375]								
Vencl	3	4/17/30	2,280.48	1/ 4/31	Jesse Shafer E. G. Crabtree	1,954.32	4/ 1/31	S. G. Oakes O. L. Hayes
Vencl	5	6/12/30	8,413.44	1/ 3/31	J. F. Armstrong E. G. Crabtree	7,438.38	4/ 4/31	S. G. Oakes W. M. Coplin
Vencl	6	7/26/30	29,861.70	1/ 6/31	S. G. Oakes R. L. Alexander	9,003.72	4/ 4/31	S. G. Oakes O. L. Hayes
Vencl	8	6/12/30	5,315.04	1/ 5/31	S. G. Oakes Chas. Silvis	5,091.60	4/ 5/31	S. G. Oakes W. M. Coplin
Vencl	9	7/ 6/30	16,498.80	1/ 3/31	Jesse Shafer E. G. Crabtree	24,508.32	4/ 4/31	S. G. Oakes F. H. McCann
Vencl	10	8/11/30	1,423.68	2/ 3/31	W. J. Smart C. E. Long			
Vencl	11	6/30/30	13,969.92	1/ 3/31	S. G. Oakes A. J. Hannah	13,830.36	4/ 2/31	S. G. Oakes I. T. Hounold
Vencl	12	6/19/30	16,964.16	1/ 4/31	A. E. Nicholson E. G. Crabtree	15,867.54	4/ 2/31	S. G. Oakes W. J. Barlow

Vencl	13	9/10/30	27,267.36	1/ 6/31	Jesse Shafer R. L. Alexander	28,990.80	4/ 5/31	Jesse Shafer W. M. Coplin
Vencl	14	7/ 9/31	6,889.68	1/ 6/31	S. G. Oakes R. L. Alexander	9,956.16	4/ 6/31	S. G. Oakes S. Rogers
Vencl	15	8/11/30	28,645.68	1/ 4/31	J. F. Armstrong E. G. Crabtree	28,240.32	4/ 3/31	Jesse Shaffer A. R. Anderson
Vencl	16	7/ 9/30	25,959.84	1/ 5/31	J. F. Armstrong Chas. Silvis	31,024.68	4/ 1/31	S. G. Oakes I. T. Hounold
[fol. 376]					Skelly Oil Co.			
Ainsworth	1	8/23/30	3,980.52	1/16/31	E. A. Jenkins Henry McNarara	4,235.76	4/17/31	H. H. Haper S. S. Hahn C. E. Long W. J. Riggle
Aisnworth	2	8/27/30	3,443.04	1/15/31	A. H. Housewright Paul Sullens	2,823.12	4/ 1/31	V. E. Jeton I. S. McGrew W. J. Riggle S. S. Hahn
Ainsworth	4	8/23/30	5,322.96	1/15/31	A. H. Housewright Paul Sullesn	4,807.08	4/ 1/31	V. E. Jeton I. S. McGrew S. S. Hahn
Dillon	1	10/ 2/30	4,514.04	1/10/31	D. F. Collins J. M. Carter Lee Wall	3,355.80	4/ 4/31	H. H. Haper C. E. Long J. H. Bond
Dillon	2	8/18/30	7,132.32	1/10/31	H. H. Haper Paul H. Sullens	5,945.52	4/ 3/31	E. A. Jenkins R. E. Dugger C. E. Long
Dunn	1	4/23/30	17,133.30	1/ 3/31	E. A. Jenkins J. M. Carter	16,951.42	4/ 2/31	R. Beard R. Calhoun J. Smith Ed. R. Welch
G. Field	1	10/28/30	28,263.60	1/ 8/31	P. S. Harlow J. E. Findley Lloyd Lacey	26,295.96	4/ 7/31	P. S. Harlow Thos. Sulton H. F. Ham L. O. Bradford Harper Turner

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Harper-Turner	1	11/28/30	61,558.44	2/ 3/31	H. H. Haper L. C. Rice E. G. Dahlgren	64,804.08	4/ 9/31	E. A. Jenkins C. M. Keeler J. E. Jones Jack Critcher
Hoops	3	3/31/30	2,500.92	1/ 5/51	K. G. Tate B. C. Thornbrue C. Barron	5,910.00	4/ 1/31	K. G. Tate A. R. Anderson J. H. Parks
Hoops	4	4/28/30	10,167.60	1/ 3/31	K. G. Tate Jack Brown C. Barron	4,788.36	4/ 3/31	K. G. Tate Louis Koscielbuy B. S. Bikes
Hoops	5	4/27/30	560.88	1/ 3/31	K. G. Tate B. C. Thornbrue C. Barron	443.88	4/ 2/31	K. G. Tate H. J. Parkt Frank Schandof
Hoops	7	5/26/30	3,458.88	1/ 6/31	H. H. Haper B. C. Thornbrue C. Barron	3,972.24	4/ 2/31	K. G. Tate J. H. Parkt Frank Schandof
Hoops	8	5/24/30	10,069.32	1/ 4/31	K. G. Tate J. H. Parks C. Barron W. W. Moore	5,732.46	4/ 4/31	K. G. Tate A. R. Anderson B. C. Thornbrue
J. Hurt	1	9/25/30	70,674.54	1/13/31	E. A. Jenkins R. E. Seal J. M. Carter	68,817.96	4/ 8/31	E. A. Jenkins J. E. Bitler Jack Crutcher
Tanner	1	8/26/30	4,306.32	1/13/31	P. S. Harlow R. E. Dugger Paul H. Sullens	3,538.32	4/ 6/31	P. S. Harlow G. R. Floyd I. S. McGrew
Tanner	2	9/ 4/30	42,903.36	1/15/31	E. A. Jenkins Paul H. Sullen	37,417.44	4/17/31	H. H. Haper S. S. Hahn J. B. Abbott C. E. Long

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Slidk-UrscheT Inc.

Alexander	1	8/12/30	11,454.72	1/11/31	Chas. H. Mee Neal Conley Ralph E. Clark O. E. Yeatts	9,576.00	4/11/31	Chas. N. Mee Neal Conley A. R. Wentworth C. E. Long
Alexander	2	8/29/30	1,771.92	1/12/31	Chas. H. Mee Neal Conley R. E. Steel	1,260.00	4/ 6/31	Albert Davis C. E. Long W. S. Wood
Atkinson	1	8/20/30	10,666.80	1/ 9/31	Chas. H. Mee Carl Bashara K. S. McNabb	10,253.76	4/ 4/31	L. E. Reames Monroe Duncan W. E. Collier
Atkinson	2	8/26/30	14,794.08	1/ 6/31	Chas. H. Mee F. L. Bensfield	13,372.80	4/ 3/31	Chas. H. Mee D. F. Hudspeth Earl Silord
Bailey	1	4/22/30	10,007.40	1/ 7/31	Early Wallace K. E. Steel J. W. Thomason	9,912.00	4/ 4/31	John Smith J. E. Bitler S. Ward Paul Phelton Dewey Kelley
Baker	1	8/ 2/30	.....	.....	.....	1,657.44	4/ 8/31	Albert Davis F. J. Hiegle Lon C. Rice
Baker	2	8/ 4/30	6,230.88	1/ 9/31	Chas. H. Mee A. H. Housewright E. B. Meadows	6,203.04	4/ 6/31	Albert Davis G. E. Bitler R. E. Adams Lon C. Rice
Baker	3	8/27/30	2,723.88	1/ 8/31	Chas. H. Mee A. R. Holloway Casey Cole	2,640.96	4/ 7/31	Albert Davis F. H. Hiegle C. W. Ball R. E. Adams
Baker	4	7/21/30	13,295.52	1/ 7/31	Chas. H. Mee C. C. Cole	12,024.60	4/ 3/31	Chas. H. Mee I. N. Merrell G. E. Bitler
Baker	5	9/29/30	9,613.08	1/ 8/31	Chas. H. Mee Carl Bashara	8,503.44	4/ 6/31	Albert Davis Lee Stevens L. C. Rice R. E. Adams

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Cawins	1	3/13/31	.....	.....	.....	29,981.52	5/21/31	Chas. H. Mee K. S. McNabb R. E. Brien
Campbell	1	8/22/30	37,488.06	1/ 8/31	Chas. H. Mee E. B. Meadows J. E. Hoover	33,774.48	4/ 4/31	Chas. H. Mee S. E. Hankins Joy Sneed
Campbell	2	12/ 3/30	40,728.84	1/29/31	Chas. H. Mee E. G. Dahlgren L. C. Rice	38,310.96	4/ 2/31	Chas. H. Mee S. E. Hawkins A. H. Otis Joy Sneed
Campbell	3	12/ 7/30	54,513.54	1/ 3/31	Chas. H. Mee E. L. Marvin	53,901.24	4/ 1/31	W. B. Long Neal Conley
S. Carter	1	6/14/30	12,921.36	1/ 6/31	Chas. H. Mee B. F. Collins E. T. Meadows A. R. Holloway	12,461.76	4/ 5/31	H. H. Ferrall C. G. Jones K. S. McNabb
Classon	1	6/28/30	5,303.26	1/ 7/31	Chas. H. Mee Ralph E. Clark	4,414.56	4/ 4/31	Chas. H. Mee Jewell Ross Melvin Rogers
Classen	2	8/30/30	21,488.76	1/ 5/31	Chas. H. Mee E. T. Meadows J. E. Starks	20,594.94	4/ 2/31	Chas. H. Mee K. S. McNabb Earl Saward
Classen	3	9/24/30	50,005.56	1/ 3/31	Chas. H. Mee Carl Bashara	52,214.88	4/ 1/31	Chas. H. Mee Jewell Ross L. C. Rice
[fol. 378]								
Classen	4	1/ 7/31	53.295.84	1/23/31	Chas. H. Mee K. S. McNabb J. B. Abbott	46,279.68	4/ 3/31	Chas. H. Mee W. H. Davis Jewell Ross
Classen-Edwards	1	9/25/31	48,616.08	1/14/31	Chas. H. Mee R. E. Steel J. B. Abbott	46,720.56	4/ 1/31	C. L. Ray J. B. Abbott G. E. Bitler

Clegg	1	10/22/30	11,784.72	1/27/31	Taylor Mayfield E. G. Dahlgren Paul H. Sullens J. B. Abbott	8,809.80	4/ 2/31	Chas. H. Mee G. E. Bitler J. W. Thomason
Clegg	2	12/ 6/30	12,218.04	1/30/31	Chas. H. Mee C. E. Long O. E. Yeatts	4,873.92	4/ 4/31	Chas. H. Mee C. J. Jones E. R. Welch J. W. Thomason
Crawford	1	7/22/30	12,014.04	1/ 8/31	Chas. H. Mee J. S. Brown A. H. Housewright	10,665.66	4/ 3/31	Chas. H. Mee A. H. Otis C. E. Long
Danreuther	1	10/ 8/30	1,779.24	1/12/31	Taylor Mayfield A. H. Housewright Carl Bashara K. S. McNabb	1,513.44	4/ 7/31	Albert Davis G. E. Bitler Neal Conley
Danreuther	2	8/22/30	4,057.20	1/12/31	Taylor Mayfield Neal Conley R. L. Oslerhout Carl Bashara	12,986.16	4/ 4/31	Cha. Mee W. H. Vance R. Brand
Danreuther	3	9/ 9/30	5,041.44	1/ 8/31	J. R. Fletcher J. S. Brown A. H. Housewright	3,938.16	4/ 4/31	Chas. H. Mee W. H. Vance J. R. Haeden
Daugherty	1	8/19/30	9,709.92	1/ 9/31	Chas. H. Mee A. H. Housewright	32,375.76	4/17/31	Chas. H. Mee R. J. Balck
Dean	1	9/29/30	43,655.34	1/ 5/31	Chas. H. Mee Earl Louett	40,291.98	4/ 2/31	C. L. Ray Robert Black H. B. Allensworth
Dennis	1	6/17/30	5,475.66	1/ 4/31	Chas. H. Mee R. L. Irby	4,386.84	5/25/31	C. L. Ray B. C. Stone
Dinnivan	1	6/10/30	7,994.40	1/ 9/31	Chas. H. Mee A. H. Housewright	8,021.76	4/ 4/31	Chas. H. Mee A. E. Jones W. R. Mooney
Foote	1	6/25/30	13,512.90	1/11/31	Chas. H. Mee R. W. Buzza O. E. Yeatts	13,298.70	4/20/31	Chas. H. Mee W. H. Vance J. S. Ward C. E. Long

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Foote	2	8/31/30	1,931.16	3/ 3/31	Chas. H. Mee J. R. Holder C. E. Long	1,603.20	4/ 3/31	Chas. H. Mee K. S. McNabb Virgil Swope
Foote	3	10/ 7/30	3,788.76	2/ 9/31	Chas. H. Mee E. G. Dahlgren O. E. Yeatts C. E. Long	3,772.20	4/ 3/31	Chas. H. Mee G. E. Bitler Virgil Swope
Foote-Bricoe	1	1/16/31	503.10	1/16/31	Chas. H. Mee J. L. Chenault R. W. Buzza	409.50	4/ 6/31	Albert Davis C. H. Foster E. L. Dotson
Frisco	1	12/ 3/30	38,643.96	2/20/31	Chas. H. Mee L. C. Rice J. B. Abbott	36,187.32	4/ 2/31	Chas. H. Mee J. E. Bitler W. A. Wilson J. W. Thomason
Frisco	2	1/27/31	.....	.....	.....	23,987.28	4/ 6/31	Albert Davis A. C. Carrison J. W. Thomason
[fol. 379]								
C. G. Frost	1	9/ 2/30	3,282.24	1/12/31	C. L. Ray A. H. Housewright	3,529.80	4/ 2/31	C. L. Ray John Trace
Frost Hgts.	1	8/14/30	2,299.50	1/ 6/31	Chas. H. Mee Paul H. Sullens	4,443.96	4/ 3/31	C. L. Ray E. F. Banks L. B. McFadden P. H. Sullivan
Frost Hgts.	2	8/21/30	3,213.72	1/ 7/31	Chas. H. Mee Paul H. Sullens A. H. Housewright	3,943.14	4/ 3/31	C. L. Ray E. F. Banks Paul H. Sullens W. E. Helme
Frost Hgts.	3	9/ 5/30	.....	.....	.....	1,073.58	4/ 6/31	C. L. Ray Paul H. Sullens W. J. Riggle

Frost Hgts	4	8/24/30	5,138.04	1/ 7/31	Chas. H. Mee A. H. Housewright Paul H. Sullens	5,074.92	4/ 3/31	C. L. Ray E. F. Banks Paul H. Sullens W. F. Helue
Gleason	1	9/13/30	6,415.68	1/12/31	Chas. Houghton R. E. Steel	6,581.76	4/ 5/31	C. Houghton J. E. Jones R. E. Adams
Harrison	1	9/16/30	3,080.46	1/22/31	C. L. Ray Fred Engram R. E. Clark	1,574.88	5/11/31	Chas. H. Mee C. M. Keeler Lee Wall C. E. Long
Hoops	2	3/20/30	1,257.60	1/ 4/31	Chas. H. Mee J. W. Whitchurch	1,146.12	4/ 7/31	Albert Davis E. L. Browning J. S. Whitchurch Scott Robinson
Hoops	3	4/14/30	3,043.68	1/ 6/31	A. R. Anderson J. S. Whitchurch	2,990.40	4/ 3/31	C. Barron N. J. Simon
Hoops	4	4/ 9/30	10,057.92	1/ 5/31	A. R. Anderson J. S. Whitchurch	2,515.20	4/ 1/31	C. Barron L. W. Willis L. D. Caudwell
Hoops	5	5/16/30	6,660.96	1/ 7/31	A. R. Anderson J. S. Whitchurch	6,429.48	4/ 7/31	Albert Davis E. L. Browning Frank Schandoff
Hoops	6	5/ 7/30	3,111.12	1/ 6/31	A. R. Anderson J. S. Whitchurch	1,696.32	4/ 7/31	Albert Davis E. L. Browning L. W. Willis
Hoops	7	4/27/30	8,767.44	1/ 5/31	A. R. Anderson J. S. Whitchurch	3,258.36	4/ 3/31	C. Barron W. J. Simon
Houghton	1	4/22/30	10,763.76	1/ 9/31	Chas. H. Mee E. T. Meadows B. F. Collins	10,572.30	4/ 4/31	Early Wallace A. E. Jones Paul Phelton Dewey Kelley
Houston	1	9/ 2/30	2,005.80	1/ 5/31	Chas. H. Mee Eugene Wano Neal Conley	1,333.32	4/ 2/31	Chas. H. Mee Thos. Sutton J. W. Thomason
Huddleston	1	7/29/30	3,284.64	1/ 5/31	Chas. H. Mee Clarence Majors L. O. Hardy	3,673.20	4/ 4/31	C. L. Ray E. L. Browning W. E. Childs

DEFENDANT'S EXHIBIT X—Continued

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Key	1	9/21/30	.....	.....	.....	1,354.50	4/ 6/31	W. S. Tyer Albert Davis J. B. Abbott
Key	2	10/14/30	2,029.92	1/11/31	Chas. H. Mee R. E. Clark Paul H. Sullens	2,079.00	4/ 3/31	Chas. H. Mee C. E. Long E. C. McIntyre M. L. Young
[fol. 380]								
Lard	1	10/29/30	58,131.84	1/12/31	Chas. H. Mee J. E. Starks J. E. Hoover	55,575.08	4/ 1/31	Chas. H. Mee K. S. McNabb D. C. Wilson
Martin	1	5/24/30	3,369.60	1/10/31	H. H. Ferrall J. L. Chenault Neal Conley	8,876.40	4/ 7/31	H. H. Ferrall F. J. Heigle K. S. McNabb
Miller	1	9/ 9/30	4,412.76	1/11/31	Chas. H. Mee Neal Conley J. R. Holden	3,777.60	4/ 3/31	Chas. H. Mee K. S. McNabb C. R. Welch
Milner	1	7/12/30	7,311.20	1/ 9/31	Chas. H. Mee C. M. Keeler Carl Bashara K. S. McNabb	7,150.56	4/ 7/31	Albert Davis A. C. Garrison C. W. Bolts L. C. Rice
Milner	2	7/31/30	8,481.60	1/ 8/31	Chas. H. Mee A. R. Holloway Casey Cole	8,033.76	4/ 5/31	Chas. H. Mee A. C. Garrison
Moore	1	9/ 3/30	1,680.30	1/ 5/31	Chas. H. Mee Neal Conley Eugene Wano			
S. Owens	1	2/ 3/31	.....	.....	.....	52,035.84	4/ 5/31	Chas. H. Mee Robert Black S. E. Hawkins Melvin Rogers

Page	1	8/ 7/30	1,701.12	1/13/31	Chas. H. Mee C. W. McIntyre	2,609.52	4/ 6/31	C. L. Ray Jesse Shipley Paul H. Sullens
Page	2	8/15/30	2,991.36	1/ 4/31	Chas. H. Mee A. E. Black	2,647.44	4/ 6/31	C. L. Ray Jess Shipley Paul H. Sullens
Podman	1	10/16/30	1,253.88	1/29/31	Clyde Hornshon E. G. Dahlgren J. E. Hoover	928.80	5/11/31	Chas. H. Mee C. E. Long J. R. Irvin
Storey	1	7/16/30	10,027.44	1/ 6/31	Chas. H. Mee F. L. Bensfield	8,542.68	4/ 5/31	Chas. H. Mee Robert Black Virgil Swope
Thornton	1	9/24/30	11,965.92	1/ 6/31	Chas. H. Mee W. W. Walcutt	11,762.28	4/ 4/31	C. L. Ray E. L. Browning W. E. Childs
Townsend	1	6/14/30	2,763.84	1/10/31	Chas. H. Mee J. L. Chenault A. H. Housewright K. S. McNabb	3,078.24	4/ 6/31	Chas. Houghton W. C. Stevens R. E. Adams
Trumbly	1	10/17/30	4,797.48	1/10/31	Taylor Mayfield Neal Conley	4,968.96	4/17/31	Chas. H. Mee Neal Conley R. J. Black L. C. Rice
Wepaco	1	10/29/30	56,748.36	1/ 8/31	Chas. H. Mee R. E. Clark E. P. Meadows	55,374.96	4/ 1/31	Chas. H. Mee Fred Farrell L. C. Rice
Whitfield	1	2/18/31	.....	.....	.....	44,126.58	4/24/31	Chas. H. Mee W. H. Jarvis W. E. Best C. E. Long
Wilson	1	10/ 7/30	55,416.36	1/15/31	Chas. H. Mee E. G. Dahlgren A. J. Hannah	52,164.30	4/ 1/31	Chas. H. Mee F. H. McCann Joy Sneed

DEFENDANT'S EXHIBIT X—Continued

[fol. 381]

Lease	Well No.	Date well came in	January pot.	Date	Witness	April pot.	Date	Witness
Sunray Oil Co.								
Mead	1	12/28/30	66,168.00	2/18/31	P. H. Pryor C. E. Long	65,659.44	4/ 4/31	P. H. Pryor K. S. McNabb
Olafson	1	10/11/30	3;318.00	1/23/31	P. H. Pryor E. G. Dahlgren Paul H. Sullens			
Rinehart & Donivan	1	12/28/30	71,490.00	3/ 2/31	P. H. Pryor C. E. Long	68,708.18	4/ 2/31	P. H. Pryor L. C. Rice
Twyford-Smith	1	12/13/30	51,865.00	2/12/31	B. B. McDanil E. G. Dahlgren J. B. Abbott L. C. Rice	47,766.96	6/ 3/31	P. H. Pryor Carl Bashara
Wellman Oil & Refining Co.								
Shepherd	1	8/12/30	.....	.....	.....	2,827.80	6/15/31	W. J. Wellman C. M. Keeler D. E. Ingle C. Davis Jack Critcher
Westgate Oil & Gas Co.								
Kelsey	1	1/21/31	17,120.28	3/26/31	F. C. Hall C. M. Keeler	17,179.56	4/ 7/31	Dean Sill C. M. Keeler J. B. Abbott L. C. Rice
Wilson	1	3/28/31	.....	.....	.....	27,833.16	6/18/31	J. E. Bitler Paul H. Sullins J. H. Burns

Wilcox Oil & Gas Co.

Short	1	2/28/31	.....	.....	.....	12,105.60	5/12/31	A. T. Johnston C. M. Keeler
Wright	1	3/22/31	.....	.....	.....	10,243.20	6/ 6/31	A. F. Johnston C. M. Keeler J. C. Rohr Paul Sullens L. G. Maxwell

Wrightsmith Oil Co.

Smith	1	7/15/30	9,828.00	1/28/31	E. R. Welch E. G. Dahlgren L. C. Rice	6,221.22	4/ 7/31	E. R. Welch J. S. McNabb J. R. Irvin
Smith	2	10/20/30	5,670.00	3/14/31	H. B. Jones K. K. Kwnely L. C. Rice Lee C. Cottrell	6,016.50	4/10/31	E. R. Welch J. H. Bond C. E. Long J. L. Thomas

[fol. 382] Defendants' Exhibit "Y", Record, p. 376, summary of potentials by companies, which is in words and figures as follows, to wit:

[fol. 383] DEFENDANTS' EXHIBIT Y

Summary

Company	No. of wells	January potentials	April potentials
Acme Oil & Gas Co.	1	46,850.52	42,686.40
Addition Pet. Corp.	1	None	61,939.50
Anderson-Prichard	25	144,460.14	381,143.18
Balckstock et al.	1	6,252.00	4,371.60
Blackwell Oil & Gas Co.	3	None	52,134.00
British-American Oil Co.	9	287,234.52	276,078.96
California Operating Co.	1	None	3,685.50
Capitol Prod. & Refg. Co.	1	48,639.66	46,419.84
Century Pet. Co.	5	98,480.16	154,046.28
Champlin Refg. Co.	4	32,585.82	22,823.28
Chatham Oil Co.	2	106,929.48	101,289.96
Coline Oil Co.	31	86,760.06	70,350.64
Continental Oil Co.	5	49,710.96	32,911.80
Cromwell-Franklin	20	294,722.60	264,863.46
Dengail Oil & Gas Co.	3	3,177.54	80,538.66
Denver Prod. & Refg. Co.	4	75,124.68	96,787.98
Donleon Oil Co.	1	47,064.66	54,335.70
Eason Oil Co.	1	None	38,532.66
Empire Oil Co.	3	6,592.02	27,027.96
Wirt Franklin Pet. Corp.	34	265,861.48	265,520.94
Hall & Briscoe	1	20,865.84	8,644.32
I. T. I. O.	253	1,590,718.21	1,679,187.79
Johnson-Dabney-Patton	1	None	18,769.68
Jones Bros.	2	18,238.20	49,230.00
J. E. Mabee	4	74,488.50	167,301.24
R. A. McArthur Inc.	1	55,967.92	55,249.68
Mid-Kansas Oil & Gas Co.	8	24,537.00	24,559.99

Company	No. of wells	January potentials	April potentials
Minnehoma Oil & Gas Co.	1	65,271.12	61,474.56
Oils Incorporated	4	62,628.24	162,118.98
Phillips Petroleum Corp.	38	778,346.28	1,403,816.42
Plains Petroleum Corp.	1	None	5,292.00
Prairie Oil & Gas Co.	14	49,890.00	51,582.24
Reynolds & Unruh	1	24,004.92	24,831.06
Russell Pet. Co.	1	11,753.88	14,663.28
[fol. 384]			
J. C. Shaffer Inc.	5	38,845.98	83,114.52
Shell Petroleum Corp.	8	11,508.48	10,153.98
Sinclair	39	427,314.50	390,168.42
Skelly	16	275,990.04	259,639.40
Slick-Urschel	71	882,495.00	1,006,101.54
Sunray	4	192,841.00	182,129.58
Wellman O. & Refg.	1	.....	2,827.80
Westgate	2	17,120.28	45,012.72
Wilcox	2	.....	22,348.80
Wrightsmith	2	15,498.00	12,237.72
Grand Total	635 wells	6,238,769.69	7,817,944.02

[fol. 385] Defendants' Exhibit "Z", Record, p. 376, status of estimated wells, which is in words and figures as follows, to wit:

[fol. 386]

DEFENDANT'S EXHIBIT Z

Status of Estimated Wells as of 7 A. M. June 19th, 1931

Lease	Well No.	Potential Estimated	Jan.	Feb.	March	April	May	June 1–19th	Manner in which potential was estimated
Coline Oil Co.									
Clauer	1	1,626	.....	63	.....	.....	.....	.....	24 hr. test July 27th, 1930.
Warren	2	1,800	108	1,655	.....	.....	.....	.....	377 bbls. in 5 hrs. Oct. 24, 1930.
"	5	1,008	50	.....	.....	.....	.....	.....	421 bbls. in 10 hrs. Sept. 23rd, 1930.
	3	4,434							
Cromwell-Franklin									
Trosper Park	1	35	.....	.....	647	1,672	.....	.....	32 bbls. in 22 hrs. Nov. 29, 1930.
"	3	645	.....	.....	1,333	126	.....	.....	24 hrs. test Sept. 25, 1930.
"	4	366	.....	.....	356	.....	592	928	231 bbls. in 14 hrs. Sept. 28, 1930.
"	5	220	.....	.....	802	136	.....	.....	24 hr. test Sept. 13, 1930.
"	6	9,936	332	.....	.....	5,840	12,599	3,724	1656 bbls. in 4 hrs. Dec. 13, 1930.
"	11	1,272	.....	.....	.....	.....	.....	.....	741 bbls. in 14 hrs. Nov. 24, 1930.
"	12	588	.....	.....	.....	.....	.....	.....	552 bbls. in 22½ hrs. Sept. 22, 1930.
"	14	1,794	.....	.....	.....	493	.....	.....	598 bbls. in 7 1/3 hrs. Dec. 27, 1930.
"	15	535	.....	.....	.....	2,866	577	.....	24 hr. test Sept. 18, 1930.
"	16	1,064	778	151	574	4,771	2,327	63	666 bbls. in 15 hrs. Oct. 28, 1930.
	10	16,455							
Franco-Dominion									
Echroat	1	37,884	.....	New well	6,314	.....	.....	6,179	6314 in 4 hrs. March 11, 1931.
	1	37,884							
Wirt Franklin									
Eacock	1	5,004	.....	.....	1,357	337	3,143	4,295	834 bbls. in 4 hrs. Dec. 7, 1930.
Lowery	5	9,722	.....	239	.....	.....	.....	.....	9722 bbls. in 24 hrs. May 2, 1930.

Theimer	2	269	.....	.....	.....	.....	.....	.....	68 bbls. in 6 hrs. July 13, 1930.
"	6	2,870	.....	.....	640	2,211	1,623	.....	645 bbls. in 4 hrs. Dec. 9, 1930.
"	9	11,886	140	63	12,357	2,335	.....	.....	1638 bbls. in 4 hrs. Dec. 12, 1930.
	5	30,751							
					Hall & Briscoe				
Grace	1	18,564	155,516	301	.....	.....	.....	.....	4641 bbls. in 6 hrs. Jan. 17, 1931.
	1	18,564							
					I. T. I. O.				
Billen	1	532	.....	.....	325	1,603	.....	105	24 hr. test Nov. 12, 1930.
A. Bodine	2	903	.....	.....	.....	.....	.....	.....	414 bbls. in 11 hrs. Nov. 20, 1930.
B. Anderson	2	27	.....	.....	.....	.....	.....	.....	24 hr. test Dec. 15, 1930.
A. Brokaw	2	3,072	280	31	.....	.....	942	.....	64 bbls. in 30 mins. Dec. 13, 1930.
"	3	144	.....	.....	.....	.....	.....	.....	48 bbls. in 8 hrs. Oct. 17, 1930.
"	4	32	.....	.....	.....	.....	.....	.....	24 hr. test Nov. 24, 1930.
Butterfield	1	7,632	2,528	1,260	5,898	100	966	.....	949 bbls. in 3 hrs. Dec. 1, 1930.
Button	1	37	.....	.....	.....	.....	.....	.....	24 hr. test Dec. 1, 1930.
"	2	124	.....	.....	.....	.....	.....	.....	24 hr. test Dec. 15, 1930.
"	3	360	287	.....	.....	.....	.....	503	339 bbls. in 22 hrs. Nov. 20, 1930.
"	5	930	.....	.....	.....	.....	.....	.....	753 bbls. in 19 hrs. 25 mins. Oct. 11, 1930.
C. Button	1	264	.....	.....	.....	.....	.....	.....	11 bbls. in 1 hr. Oct. 12, 1930.
L. Canfield	1	408	.....	.....	.....	.....	.....	.....	113 bbls. in 6 hrs. 40 mins. Nov. 11, 1930.
"	2	258	142	382	540	.....	.....	.....	43 bbls. in 4 hrs. Nov. 25, 1930.
N. Emerson	1	60	.....	.....	.....	.....	.....	.....	16 bbls. in 5 hrs. 20 mins. Nov. 17, 1930.
"	9	7,171	.....	.....	.....	.....	.....	.....	249 bbls. in 50 mins. Nov. 3, 1930.
E. Fortson	1	247	252	.....	.....	.....	.....	.....	24 hr. test Oct. 3, 1930.
"	2	262	75	.....	.....	.....	.....	.....	41 bbls. in 4 hrs. May 24, 1930.
Fortson-Farley	1	10	388	.....	.....	.....	.....	.....	10 bbls. in 24 hr. test July 1, —
" "	3	60	.....	.....	.....	.....	.....	.....	57 bbls. in 22½ hrs. June 29, 1930.

DEFENDANT'S EXHIBIT Z—Continued

Lease	Well No.	Potential Estimated	Jan.	Feb.	March	April	May	June 1–19th	Manner in which potential was estimated
[fol. 387]									
M. Fuzzell	2	387	.....	.....	.....	.....	.....	.....	129 bbls. in 8 hrs. Oct. 14, 1930.
Ivanhoe Add	2	11,416	1,066	1,984	.....	552	195	.....	121 bbls. in 15 mins. Nov. 25, 1930.
Jennings	1	3,213	.....	.....	.....	.....	.....	.....	1071 bbls. in 8 hrs. Oct. 20, 1930.
B. Johnson	2	1,936	.....	.....	.....	.....	.....	.....	968 bbls. in 12 hr. test June 5, 1930.
Mackey	1	794	.....	.....	.....	.....	.....	461	167 bbls. in 5 hrs. Aug. 16, 1930.
Salsman	2	856	.....	.....	.....	.....	.....	.....	547 bbls. in 15 hrs. Oct. 28, 1930.
Theimer	4	24	.....	.....	.....	.....	.....	.....	24 bbls. in 24 hrs. Nov. 23, 1930.
T. Fuzzell	1	494	.....	.....	.....	.....	.....	.....	199 bbls. in 9 hrs. 40 mins. Oct. 9, 1930.
.....	3	177	.....	.....	.....	.....	.....	.....	24 hr. test Oct. 18, 1930.
Trosper	1	27	.....	.....	.....	.....	.....	.....	27 bbls. in 24 hrs. June 1, 1930.
Watters	3	822	.....	.....	.....	.....	.....	.....	548 bbls. in 16 hrs. Oct. 15, 1930.
Wheeler	1	16	.....	.....	.....	.....	.....	.....	16 bbls. in 24 hrs. July 20, 1930.
Worley Hgts.	1	2,592	.....	.....	.....	.....	.....	.....	432 bbls. in 4 hrs. Dec. 20, 1930.
	33	45,287							
					Marco Oil & Refining Co.				
Holder	1	1,248	.....	.....	.....	.....	.....	.....	24 hr. test Dec. 10, 1930.
	1	1,248							
					Mid-Texas Petroleum Corp.				
Flo-Hills	1	7,288	.....	13,771	7,481	.....	.....	.....	24 hr. test Oct. 9, 1930.
	1	7,288							
					Morgan Petroleum Corp.				
Stout	1	24,216	5,800	.....	.....	.....	.....	3,779	112,000 bbls. in 4 days 15 hrs. 20 mins. Dec. 25, 8 A. M. to 1:20 P. M. Dec. 29th, 1930.
	1	24,216							

Sinclair Oil & Gas Company									
Kinter	2	54	.....	.....	.....	.....	.....	.....	24 hr. test Oct. 20, 1930.
"	3	216	.....	.....	.....	.....	.....	.....	44 bbls. in 5 hrs. Oct. 10, 1930.
"	4	56	.....	.....	.....	.....	.....	.....	26 bbls. in 11 hrs. Dec. 2, 1930.
"	5	51	.....	.....	.....	.....	.....	.....	29 bbls. in 13 hrs. 30 mins. Oct. 13, 1930.
"	6	18	.....	.....	.....	.....	.....	.....	16 bbls. in 21 hrs. Dec. 1, 1930.
"	8	15	.....	.....	.....	.....	.....	.....	24 hr. test Oct. 31, 1930.
"	9	31	.....	.....	.....	.....	.....	.....	24 hr. test Nov. 25, 1930.
"	10	89	.....	.....	.....	.....	.....	.....	24 hr. test Sept. 9, 1930.
School Land 54	1	3,018	.....	.....	.....	.....	.....	.....	503 bbls. in 4 hrs. Oct. 31, 1930.
" "	5	790	.....	.....	.....	.....	.....	.....	24 hr. test Oct. 29, 1930.
" " 67	7	609	384	1,637	1,314	933	1,165	400	26 bbls. in 1 hr. March 31, 1931.
Stamper	3	250	.....	.....	.....	.....	.....	.....	24 hr. test Dec. 7, 1930.
"	4	21	.....	.....	.....	.....	.....	.....	24 hr. test Dec. 17, 1930.
"	6	156	.....	.....	.....	.....	.....	.....	52 bbls. in 8 hrs. Dec. 8, 1930.
Vencl	4	359	.....	.....	.....	.....	.....	.....	24 hr. test Oct. 31, 1930.
"	7	1,224	888	.....	328	.....	683	.....	204 bbls. in 4 hrs. Dec. 1, 1930.
	16	6,957							
Skelly Oil Company									
Ainsworth	3	3,678	.....	.....	.....	.....	.....	.....	2759 bbls. in 18 hrs. Dec. 14, 1930.
Hoops	1	6,836	.....	.....	.....	.....	.....	.....	3418 bbls. in 12 hrs. Sept. 5, 1930.
"	2	2,770	.....	.....	.....	.....	.....	.....	1853 bbls. in 16 hrs. Sept. 2, 1930.
"	6	1,134	.....	.....	.....	.....	.....	.....	756 bbls. in 16 hrs. Sept. 10, 1930.
	4	14,418							
Slick-Urschel Inc.									
Hoops	1	1,872	.....	.....	.....	.....	.....	.....	78 bbls. in 1 hr. Nov. 25, 1930.
Hussman	1	514	.....	.....	.....	.....	.....	.....	514 bbls. in 24 hrs. test Oct. 27, —
Zecherle	1	814	39	.....	1,292	1,587	.....	.....	643 bbls. in 19 hrs. Nov. 16, 1930.
	3	3,200							
Wellman Oil & Refg. Co.									
Houser	1	2,964	.....	3,884	2,012	.....	.....	.....	494 bbls. in 4 hrs. Dec. 8, 1930.
Walker	3	4,128	1,726	1,601	2,870	1,283	.....	599	180 bbls. in 1½ hrs. Jan. 30, 1931
	2	7,092							
Grand total	81	217,794							

[fol. 388] Corporation Commission Order No. 829, offered in evidence at the time of the submission of the cause on August 3, 1931, identified as Defendants' Exhibit "A", in words and figures as follows, to-wit:

DEFENDANTS' EXHIBIT A

Order No. 829. Cause No. 2041

(Orders Issued July 1, 1914, June 30, 1915)

In re Application of THE OIL PRODUCERS and Others to Relieve the Pipe Line Companies from Taking or Prorating the Oil from Any New Wells to be Drilled in the Next Four Months

OPINION AND ORDER

By the COMMISSION:

The application herein was submitted to the Commission by agreement as a result of a conference with all the producers in what is known as the north and northeast sections of Oklahoma. This territory is being served by three marketing pipe lines—Prairie, the Texas and the Gulf. The marketing facilities consume—the Prairie 120,000 barrels per day; the Texas, 20,000 barrels per day and the Gulf 20,000 barrels per day. In addition to this amount, the Waters-Pierce, the Petroleum Products Company and numerous independent refineries take an additional amount of approximately 40,000 barrels per day, while the gross production of the territory served by these pipe lines is approximately 300,000 barrels. This leaves approximately 100,000 barrels surplus daily, or three million barrels each month. These figures are based upon the potential production of the wells that are now producing oil and should the wells be brought in that are now down to the oil sand, the production would be increased within a very short time to 340,000 barrels.

The present pipe line facilities, together with the local refineries, were sufficient to take all the oil produced in this field until what is known as the Bartlesville sand in the Cushing Field was developed. The proven area of what is known as the Bartlesville sand in the Cushing field com-

prises about 3,300 acres. The Bartlesville sand is about 2,700 to 2,800 feet in depth, and the same ranges from fifty to sometimes one hundred feet in thickness. The wells when they are first brought in produce on an average of over 1,000 barrels daily. These wells have a natural flow with, in some instances, a remarkable pressure for a number of months. This is the greatest high grade oil pool that has been discovered in the history of petroleum. It is the judgment of some expert, considering the thickness of the sand that it contains from twenty-five to fifty million barrels of high grade oil, depending upon whether or not careless drilling should injure the field by flooding it with water or foreign substances.

Four miles north of the principal development of this field, Bartlesville sand has again been discovered with prospects of a possible duplication of the production in the developed field. While between these fields the Bartlesville sand has not been productive in every instance. Practically all of the wells in this field up to date have been what are known as line wells. Interior drilling of the various tracts [fol. 389] of land is limited. The total daily production of the Bartlesville sand in the Cushing field is now 150,000 barrels per day, or half of the entire production of the northern Oklahoma fields.

This production with the prospects of a northern extension and a southern extension could easily be increased in a few months to 200,000 barrels per day.

The Layton and Wheeler sand, which was looked upon as a menace to prices last December, has decreased in production very rapidly. Practically all wells are down to a pumping basis with a total production in this sand of approximately 6,500 barrels a day. The Wheeler sand lays above the Bartlesville sand and is about 2,100 feet in depth. The Layton sand is shallower than the Wheeler, being found at about 1,600 feet. The proven area of these sands greatly exceeds the Bartlesville area at the present time. There are now 150 wells producing from the Bartlesville sand and approximately 500 wells from the Wheeler and Layton sand.

The older fields for some months past have been marking time, waiting to see what would happen at Cushing, hoping that there would be no repetition of the Glenn Pool experi-

ence which happened prior to the time of statehood when oil was reduced to thirty cents a barrel.

By mutual arrangement during the month of May, it was agreed that the pipe lines should run all of the oil from the old field and from the Wheeler and Layton sand in the Cushing field, and that the oil in the Bartlesville sand at Cushing should be prorated according to the potential capacity of the various producing properties. There is now being taken about twenty-two per cent of this production; hence, the accumulated surplus oil is in this field. It is apparent that this oil cannot all be conserved. It is not being stored in earthen and steel tankage, and many thousand barrels have been dammed up in the creeks. The Commission is now asked to relieve the pipe line companies from prorating or taking any part of the oil from wells that may hereafter be drilled for a period of four months. To prescribe a regulation of this kind under the existing conditions that grow up in oil fields without giving some producer an advantage over another is a most difficult undertaking. Yet, one of the greatest natural resources of Oklahoma should not be destructively produced and the oil brought to the surface at a time when there are absolutely no facilities for caring for all of same.

In the case of the Ohio Oil Company v. State of Indiana, the Supreme Court of the United States, by Justice White, held that oil under ground was analogous to wild animals and becomes property only when reduced to possession, and [fol. 390] also clearly indicates the power over a natural resource of this character.

The Commission would not be justified in acting upon the suggestion or request of this kind except to prevent waste of a product which the public has need for and must use. If a forest of timber were being ruthlessly and carelessly destroyed by fire or sawed down and permitted to float down rivers, the public would find some way of stopping such destruction. When gas is found and the owner thereof carelessly lets it escape into air, the State on behalf of the public prescribes regulations for the preservation of the same. We know of no reason that would be derogatory to public policy, why the Commission could not relieve the pipe lines from pro-rating oils from the new wells upon conditions and regulations as may be fair and reasonable

to all concerned for a short period of time, during which time either storage facilities or increased pipe line facilities may be investigated.

It should be remembered that these wells flow from their own pressure and cannot be stopped without danger of ruining the oil in the well. Again, this commodity is not shipped long distances by rail and to all the different markets of the world like other commodities. Its only means of transportation whereby it may meet competition is through the established pipe lines, and oil cannot be profitably shipped over the country the same as lumber or coal. This would not be true if pipe lines were not the most economical means of transportation. That is, oil transported by rail cannot compete in price with oil transported by pipe lines.

In limiting the production in the northern fields of Oklahoma there may be many conditions arise where lease obligations require certain performances and where parties have holdings with little or no production, all of which must be considered with a view of doing exact justice and equity as near as may be practicable.

It is therefore ordered that the Texas Company, the Gulf Pipe Line Company of Oklahoma, and the Prairie Oil & Gas Company shall be relieved as common purchasers from taking the production of any new wells brought in on and after the first day of July, 1914, except upon the following conditions:

First. Where lease conditions require wells to be drilled by a definite date. Such wells shall be drilled on the lease at a point where it will not be necessary for adjoining properties to off-set the same.

Second. Where properties have no production and adjoining properties may have a tendency to drain the same, even though they would not come strictly under the off-set rule.

[fol. 391] Third. All wells now in process of drilling, except such wells as require other new wells to be an off-set, drilling shall be continued on such wells.

Fourth. All wells necessary for existing producing off-sets.

Fifth. Such drilling as may be necessary on short term leases to comply with federal court orders where receivers have been appointed, all of which together with any special case where in fact inequality or injustice may be done by compliance with the above rules, will be handled especially by the Commission and determined at the time the parties desire to begin drilling.

Sixth. The owners of all producing properties in this Cushing district shall file a plat, showing their producing wells and such wells as are contemplated to be drilled under this order, with the Commission in the office of A. E. Watts, the Umpire of the Cushing field, at 203 Clinton Building, Tulsa, Oklahoma. All plats shall be filed by July 10, 1914.

Seventh. The pipe lines are relieved from running oil from any well that is hereafter squibbed or shot in the Bartlesville sand in the Cushing, Okla., field during the period of this exemption.

Eighth. The pipe line companies shall be relieved from taking oil from any new well that may be drilled under the above exceptions if the same penetrates the Bartlesville sand at Cushing, Okla., more than sixty feet without the approval of the Corporation Commission for drilling the sand to a greater depth.

All special cases not coming under the above exceptions may be submitted to the Commission at any time, and it is suggested that a committee of five be appointed in the Cushing field, consisting of B. B. Jones, Chairman, H. F. Sinclair, Jno. H. Markham, Jr., Murray Doan, W. H. McFarland, and the umpire, A. E. Watts, should be ex-officio member of this committee.

It is also suggested that a committee be appointed in the other fields or localities where it may be necessary to see that these orders are carried out and to recommend to the Commission such exceptions to the orders as may be equitable and just to all concerned, and the umpire, A. E. Watts, should also be an ex-officio member of each committee and may be called upon any time by the remaining members of the committee or when the Commission may deem his services necessary.

Inasmuch as Providence has smiled so bountifully upon the producers of the Bartlesville sand in the Cushing field,

we believe that they can well afford to sacrifice some personal advantages which, to some extent may have been [fol. 392] acquired by their own diligence and conservatism, in order that this great industry might not fall into contempt by reason of the destructive production of crude petroleum.

This order shall be in full force and effect for a period of four months from July 1, 1914.

Corporation Commission. (Signed) J. E. Love, Chairman. (Signed) A. P. Watson, Commissioner. (Signed) Geo. A. Henshaw, Commissioner.

Attest: J. H. Hyde, Secretary.

Oklahoma City, July 1st, 1914.

[fol. 393] Corporation Commission Order No. 878, offered in evidence at the time of the submission of the cause on August 3, 1931, identified as Defendants' Exhibit "B", in words and figures as follows, to-wit:

DEFENDANTS' EXHIBIT B

CORPORATION COMMISSION OF OKLAHOMA

Supplemental Order No. 878. Supplementing Order No. 847

Cause No. 2041.

CORPORATION COMMISSION OF THE STATE OF OKLAHOMA, Complainant,

vs.

MAGNOLIA PIPE LINE COMPANY, a Corporation; OKLAHOMA Pipe Line Company, a Corporation; Gulf Pipe Line Company of Oklahoma, a Corporation; The Texas Company, a Corporation, and Prairie Oil & Gas Company, a Corporation, Defendants

ORDER

At a hearing before the Commission, on this the 24th day of November, 1914, in the matter touching the sale and transportation of oil in earthen storage in the Healdton field, it appears that certain persons owning considerable quantities of oil in earthen tanks have made arrangements

to sell the same at a reduced price, and they desire to have the pipe line receive and transport the same without regard to the orders of this Commission heretofore made pro-rating the oil sold and transported among the various producers on the basis of their production.

On the hearing it appears that the oil, which is now sought to be sold and transported without regarding the former orders of the Commission and without pro-rating the same, has been placed in the earthen tanks since the order pro-rating the oil went into effect; that the owners of the oil in the earthen tanks have received the benefit of the former order of the Commission pro-rating the oil; and that it would be allowing them to dispose of a larger proportion of the oil produced from their leases than other producers are permitted to dispose of, if the amount of oil now held by them in earthen tanks should not be charged against them, or rather against their pro-rata share of the oil which they [fol. 394] are permitted to run through the Magnolia Pipe Line.

And it further appears to the Commission that if the privilege, sought by the producers who have sold their oil stored in earthen tanks, without regard to the pro-rating order, be granted, and the Magnolia Pipe Line Company should be permitted to purchase the same without pro-rating it, then the statute governing common purchasers and requiring such purchasers to treat all producers alike would be violated. But in view of the fact that, on account of seepage and evaporation, the producers of oil stored in earthen tanks have sustained a considerable loss, and unless they are permitted to dispose of the oil so held by them they will sustain further loss, the producers not so situated have recognized some equities in their favor, and have indicated to the Commission that they would be willing for the producers holding oil in earthen tanks to be permitted to run the same on the basis of the price at which such stored oil is sold; that is to say, that the inspector in the Healdton Field should be authorized and directed, for every three and one-third barrels of earthen storage oil sold at thirty cents per barrel to charge the producers so selling the same with having run two barrels of fresh oil at fifty cents per barrel.

It appears to the Commission that an order to this effect would conserve the oil in the Healdton Field and be fair and just to all parties.

It is, therefore, ordered by the Commission that the inspector in the Healdton Field be, and he is hereby, authorized and directed to pro-rate all earthen storage oil sold by the producers of said field against their respective [fol. 395] daily runs; and in all cases where the same is sold by the producers for less than the market price that the same shall be pro-rated on a basis of value or price received therefor, and not barrel for barrel; for example: for every three and one-third barrels of earthen storage oil sold at thirty cents per barrel, the producer so selling the same shall be charged on the pro-rating sheet with having run two barrels of fresh oil at fifty cents per barrel, the present market price; and the same basis shall be maintained as to pro-rating if said oil is sold for any other or different price than thirty cents per barrel.

Provided: That the total amount of storage oil determined on the above basis shall be charged up against the party running the same and a deduction of fifty per cent of the pipe line run due such party for each day shall be deducted and the amount so charged against him for storage oil shall be credited with a similar amount. This process shall continue until the amount of stored oil charged to the accounts shall be exhausted.

The Magnolia Pipe Line Company is hereby relieved from the provisions of the Common Purchaser Act to the extent of carrying out this order.

This order shall be in full force and effect on and after the 26th day of November, 1914.

Corporation Commission. (Signed) J. E. Love, Chairman. —— ——, Commissioner. (Signed) Geo. A. Henshaw, Commissioner.

Attest: (Signed) J. H. Hyde, Secretary.

Dated at Oklahoma City, this 25th day of November, 1914.

[fol. 396] Corporation Commission Order No. 920, offered in evidence at the time of the submission of this cause

on August 3, 1931, identified as Defendants' Exhibit "C", in words and figures as follows, to-wit:

DEFENDANTS' EXHIBIT C

CORPORATION COMMISSION OF OKLAHOMA

Order No. 920. Cause No. 2287

ARDMORE OIL PRODUCERS' ASSOCIATION, Complainant,

vs.

W. & F. OIL COMPANY et al. Similarly Situated, Defendants

Appearances:

For the Complainant: Chas. Von Weise, J. W. Herrald, and Wirt Franklin.

For the Defendant, W. & F. Oil Company, C. C. Herndon, and C. J. Wrightsman.

For the 1911 and Bayou Company, L. S. Dolman.

For the Corsicanna Petroleum Co., Geo. C. Greer.

For the Ardmore Refining Co., Hubert L. Mason.

FINDINGS OF FACT, OPINION AND ORDER

By HENSHAW, Commmissioner:

The complaint in this case was filed under the provisions of House Bill No. 168, "An Act defining and prohibiting waste of crude oil and petroleum," etc., otherwise known as the Oil Conservation Act, and alleges in substance: (1) That crude oil is being taken from the oil sands of the Healdton field in excess of the market demands. (2) That oil is being produced in said field in such manner and under such conditions as to constitute waste, and is being produced in excess of marketing facilities. (3) That certain producers are taking from the oil-bearing sands of said field a greater proportion of crude oil than that to which they are entitled under the provisions of Section 4 of the Act. (4) That oil produced in excess of the market demands is being placed in steel storage and in earthen storage, resulting in waste and irreparable damage and injury. (5) That specific acts are being committed whereby certain properties are producing more than their pro rata part of oil, thereby unduly draining adjoining properties; that

some of the oil so produced is being placed in earthen storage, and some in steel storage.

The petitioners pray that after due hearing the Commission promulgate rules and regulations for the prevention of waste of crude oil and natural gas in the Healdton field; that it promulgate rules and regulations for the taking of oil from the oil-bearing sands in said field and prescribe rules and regulations to determine the pro rata production of crude oil to be taken from the common pool by the individual operators.

[fol. 397] The petitioners further pray that the Commission make an order prohibiting the storing of crude oil or petroleum produced from the Healdton field, and for such other relief as may seem meet and proper.

After due publication, as provided by law, the complaint was heard by the Commission at Ardmore on April 9, 1915. No specific answers were filed but the representatives of the various producers appeared and evidence was introduced describing the conditions of the field. The case was then set for oral argument at Oklahoma City on April 23rd. All producers were permitted to file suggestions or briefs without formality, discussing the conditions and suggesting rules and regulations which in the judgment of the individual producers or parties interested would aid the Commission in prescribing practical rules and regulations that would conform to the law.

The facts according to the evidence are substantially as follows: That the potential production of the Healdton field is 70,000 barrels per day; that the pipe line facilities for transporting the oil from the field to the primary markets are (1) Magnolia Pipe Line, capacity about 15,000 barrels per day, running from Healdton field to Fort Worth and other refineries of the Magnolia Petroleum Company and to the Gulf Port-; (2) the Ardmore Refining Company's pipe line, capacity about 4,000 barrels per day, running from the field to the refinery in Ardmore; (3) the Thelma Pipe line, capacity about 2,000 barrels per day, running from the field to the town of Ringling on the Oklahoma, New Mexico & Pacific Railway. The total pipe line facilities of the field are now approximately 21,000 barrels. The purchasers of oil as shown by the evidence are the Magnolia Petroleum Company, from six to eight thousand barrels daily; the Ardmore Refining Company, from one

to two thousand barrels daily; the Thelma Pipe Line running a small amount to Ringling for rail transportation.

Within sixty days prior to the hearing, there had been from one hundred fifty to two hundred thousand barrels of oil taken from the field under what is known as "common carrier" runs to the Pierce-Fordyce Refinery at Fort Worth. The evidence further disclosed that certain properties had been producing oil greatly in excess of the pro rata amount based on the average daily consumption; that the 150,000 barrels of oil which had been run as "common carrier" runs were produced by one property of comparatively small acreage. The Commission has ascertained outside of the record that at one time more than six hundred thousand barrels of oil had been placed in earthen storage; that at the time of the hearing, most of this oil [fol. 398] had been removed. It was shown that oil had been recently pumped from wells and placed in earthen storage. (We are informed, out of the record, that as a result of the heavy rains during the month of May much of this earthen storage was carried off by the floods and that it greatly injured the crops and vegetation on farm lands, and also the water supply, particularly stock water.)

The evidence discloses that there is no unreasonable amount of gas being wasted.

At the hearing and during the argument the producers and attorneys representing various interests had different opinions as to what rules or regulations could or should be made under the law that would be practicable and equitable; however, they did agree that the storing oil in earthen reservoirs should be prohibited.

It was contended by Mr. Von Weise, one of the attorneys representing petitioners, in substance, that the storage of crude oil in wooden or steel tanks should be limited to such an amount as would meet the daily demand of the transporting and marketing facilities of the field for a period of ten days; that if for any reason any producer might not care to avail himself of his daily market pro rata, he should be permitted to store same in wooden or steel reservoirs; that in the event any producer or producers by their own efforts secured a market for their production, they should be permitted to supply that market without being pro rated amongst other producers, provided that this amount should be charged against them in their pro rata

runs to the Magnolia or other common purchasers; that all producers should be required to report to the conservation officer the amount of oil by them taken daily from the sands and that no producer should be permitted to take more than his pro rata part from the common source of supply and that interference with the fulfillment of private contracts should be avoided if possible.

Mr. Dolman, representing the Bayou and 1911 Companies, asking that certain producers specifically mentioned be prohibited from producing any more oil from the sand until such time as other producers have produced an equal amount, based upon the potential production of the respective wells.

Mr. Franklin, President of the Ardmore Oil Producers' Association, made recommendations substantially the same as those of Mr. Von Weise.

Mr. Skillern filed a brief without making specific recommendations, recommending, however, that some action should be taken to protect the small producers.

[fol. 399] Mr. Hernstadt urges that the Commission make rules and regulations strictly to carry out the provisions of the law.

Mr. Clark, of the McMan Oil Company, suggests that earthen storage should be prevented; that rules for the conserving of gas during drilling should be prescribed, using the "mudding in" or some other practicable process to prevent the escape of gas; that the restriction of production to market demands is a difficult problem.

Mr. Lincoln McKinley urges that an order should be made immediately stopping all production in excess of immediate market demands, but providing that a small amount of oil may be stored.

Mr. W. D. Teague, royalty owner, urges that the operators be allowed to build storage and continue their drilling in order to protect the royalty owners.

Mr. C. D. Goddard, of the Humble Oil Company, urges that the production of oil be pro rated alike as to all producers.

Mr. E. F. Lee of the 1911 Oil & Gas Company; Mr. G. M. Rushing, of the 1914 Oil & Gas Company, and Mr. Fred J. Harle, of the Climax Oil & Gas Company, urge that storage

oil be limited to the probable demands for thirty days, and that no exceptions be made in favor of producers having contracts.

Mr. J. M. Critchlow, of the Dundee, Samoset and Alma Oil Companies, recommends no earthen storage; steel storage only when producers have a market demand for oil; that when one producer obtains a market he should be permitted to fill his contract, regardless of the effect on the adjoining property.

Mr. Byron Drew, representing the Bayou and 1911 Companies, recommends that the law be carried out to the letter and that production be strictly prorated among producers.

Mr. C. J. Wrightsman of the W. & F. Oil Company, suggests that earthen storage should be prohibited; that steel storage by producers not affiliated with a pipe line is a commercial necessity; that the law interpreted in the spirit of its enactment would require the Commission to act when conditions are monopolized and the market is restricted from fair, reasonable and competitive opportunity; that that is the condition in the Healdton field at present; that under the present restricted market the outside purchasers of oil should be made common purchasers; that any purchaser can be made a common purchaser.

Mr. George Greer, general attorney for the Corsicana Petroleum Company, filed a brief discussing the law and the practical application thereof. With the exception of rules [fol. 400] preventing actual and unreasonable waste, his conclusions are that a part of the law is unconstitutional, and, if strictly construed, other parts are impracticable.

Sections 1, 3 and 4 of House Bill No. 168 are as follows:

"Section 1. That the production of crude oil or petroleum in the State of Oklahoma, in such manner and under such conditions as constitute waste, is hereby prohibited."

"Section 3. That the term 'waste' as used herein, in addition to its ordinary meaning, shall include economic waste, underground waste, surface waste, and waste incident to the production of oil or petroleum in excess of transportation or market facilities or reasonable market demands. The Corporation Commission shall have the power to make rules and regulations for the prevention of such wastes and for the protection of all fresh water strata, and oil and gas-bearing strata, encountereded in any well drilled for oil."

"Section 4. That whenever the full production from any common source of supply of crude oil or petroleum in this state can only be obtained under conditions constituting waste, as herein defined, then any person, firm, or corporation, having the right to drill into and produce oil from any such common source of supply, may take therefrom only such proportion of all crude oil and petroleum that may be produced therefrom, without waste, as the production of the well or wells of any such person, firm or corporation, bears to the total production of such common source of supply. The Corporation Commission is authorized to so regulate the taking of crude oil or petroleum from any or all such common sources of supply, within the State of Oklahoma, as to prevent the inequitable or unfair taking, from a common source of supply, of such crude oil or petroleum, by any person, firm, or corporation, and to prevent unreasonable discrimination in favor of any one such common source of supply as against another."

Section 5 authorizes the Commission to ascertain the potential production of the respective wells and to appoint an agent for that and other purposes.

Section 6 authorizes the Attorney General or other parties in interest to file proceedings before the Commission and prescribes the procedure.

Section 2 is not involved in the complaint. Section 3 defines waste, in addition to the ordinary and accepted meaning of the term waste, to be (1) economic waste, (2) underground waste, (3) surface waste, and (4) waste incident to the production of crude oil in excess of the transportation or marketing facilities or reasonable market demands.

The Commission finds from the evidence that there is actual waste which results from the storing of oil in earthen tanks; also actual waste in a less degree in the storing of oil in wooden and steel tanks in excess of a reasonable amount to supply the market demands.

The Commission further finds that if the total potential production of the Healdton field were produced each day, the same would be in excess of transportation or marketing facilities or reasonable market demands; that the taking from the oil sands the total potential production, or seventy or more thousand barrels per day, under conditions as exist [fol. 401] in the Healdton field would constitute waste.

The Commission further finds that the oil in the Healdton field is in one common stratum of oil sand and constitutes one common source of supply; that the present market demands of the Healdton field are not in excess of 15,000 barrels per day, that the maximum transporation facilities will not exceed 25,000 barrels per day; that the market demands vary from day to day; that under the present market demands there is less than 25 per cent of the total possible production of the oil being marketed.

The manner in which the proportion of this amount may be taken from the sands by each producer is prescribed by Section 4, as follows:

"That whenever the full production from any common source of supply of crude oil or petroleum in this state can only be obtained under conditions constituting waste as herein defined, then any person, firm, or corporation, having the right to drill into and produce oil from any such common source of supply, may take therefrom only such proportion of all crude oil and petroleum that may be produced therefrom, without waste, as the production of the well or wells of any such person, firm or corporation, bears to the total production of such common source of supply."

The Commission is authorized to prescribe rules and regulations for the taking of oil under certain conditions so as to prevent inequitable or unfair operations by the producers. The amount to be taken is fixed by law. The manner of pro rating is fixed by the law. The only duty left to the Commission, after ascertaining the fact that producing the maximum potential capacity of the field each day results in waste, is to ascertain from day to day and from time to time the pro rata part of the oil that each producer may take from the ground without constituting waste as defined by the law. The law by its own terms prevents the producer from taking oil in excess of his pro rata share as defined therein.

It is insisted by some that the enforcement of this law (the conservation act) is impracticable and by others that the law is unconstitutional. The sections of the law which are sought to be enforced by this proceeding do nothing more than make it possible for each oil producer to obtain his pro rata part of the oil which he would get if there were market facilities or a market demand for the entire production.

That the state may prevent the unreasonable waste in the production of crude petroleum and regulate the taking from the oil sands, has been definitely settled by the Supreme Court of the United States.

The conservation law under which we are now acting provides that oil shall not be produced under such conditions as constitute waste.

[fol. 402] In Ohio Oil Company vs. Indiana, 177 U. S. 190, page 202, Justice White said:

"Does the peculiar character of the substance oil and gas which are here involved, the manner in which they are held in their natural reservoir, the method by which and the time when they may be reduced to actual possession, or become the property of a particular person cause them to be an exception to the general principle applicable to other mineral deposits, and hence subject them to different rules. True it is that oil and gas, like other minerals, are situated beneath the surface of the earth, but except for this one point of similarity in many other respects they greatly differ. They have no fixed situs under a particular portion of the earth's surface within the area where they obtain. They have the power, as it were, of self-transmission. No one owner of the surface of the earth, within the area beneath which the gas and oil move can exercise his right to extract from the common reservoir, in which the supply is held, without, to an extent, diminishing the source of supply as to which all other owners of the surface must exercise their rights. The waste by one owner caused by a reckless enjoyment of his right of striking the reservoir, at once, therefore, operates upon the other surface owners. Besides, whilst oil and gas are different in character, they are yet one, because they are unitedly held in the place of deposit."

The court then reviewed the cases of Brown vs. Vandergrift, 80 Pa. 147; Hague vs. Wheeler, 157 Pa. 324; Jones vs. Forrest Oil Co., 194 Pa. 279; Peoples Gas Co. vs. Tiner, 131 Ind. 277, and many other cases.

It is judicially ascertained that oil has no fixed situs, and likewise determined that the respective and relative rights of the common or individual owners may be regulated and protested by law. The relation of ownership of oil beneath the surface is somewhat analogous to the ownership of the

individuals that compose the entire public in the wild game of the country, with the distinction that the individual owners of the surface cannot be entirely prohibited from taking oil from the oil sands, whereas, the state by law can prevent the public from taking wild game or may say in what numbers and under what conditions and in what season it may be reduced to possession. Wild game has no fixed situs and may voluntarily move from place to place without limitation, whereas, oil may move from place to place in a limited area by reason of pressure, gravitation or suction. In discussing this phase of the case, Justice White, on page 210, says:

"In things farae naturae all are endowed with the power of seeking to reduce a portion of the public property to the domain of private ownership by reducing them to possession. In the case of natural gas and oil no such right exists in the public. It is vested only in the owners in fee of the surface of the earth within the area of the gas field. This difference points at once to the distinction between the power which the lawmaker may exercise as to the two. In the one, as the public are the owners, every one may be absolutely prevented from seeking to reduce to possession. * * *. On the other hand, as to gas and oil the surface proprietors within the gas field all have the right to reduce to possession the gas and oil beneath. They could not be absolutely deprived of this right which belongs to them without a taking of private property. But there is a coequal right in them all to take from a common source of supply the two substances which in the nature of things are united, though separate. It follows from the essence of their right and from the situation of the things as to which it can be exerted, that the use by one of his power to seek to convert a part of the common fund to actual possession may result in an undue proportion being attributed [fol. 403] to one of the possesssors of the right to the detriment of the others, or by waste by one or more to the annihilation of the rights of the remainder. Hence it is that the legislative power, from the peculiar nature of the right and the objects upon which it is to be exerted, can be manifested for the purpose of protecting all of the collective owners, by securing a just distribution to arise from the enjoyment, by them, of their privilege to reduce to pos-

session and to reach the like end by preventing waste. This necessarily implied legislative authority is borne out by the analogy suggested by things ferae naturae, which it is unquestioned the legislature has the authority to forbid all from taking, in order to protect them from undue destruction, so that the right of the common owners, the public, to reduce to possession, may be ultimately efficaciously enjoyed. Viewed, then, as a statute to protect or to prevent the waste of the common property of the surface owners, the law of the State of Indiana which is here attacked because it is asserted that it divested private property without due compensation, in substance, is a statute protecting private property and preventing it from being taken by one of the common owners without regard to the enjoyment of the others."

Sections 3 and 4 of this Act come clearly within the language of Chief Justice White in that the object is to protect the common owners who have a right to take oil from the common source of supply, that those who may have pipe lines or markets may not totally destroy the rights of others who may not be so fortunately situated.

It may be urged that some of the producers in the Healdton field have gone to great expense in establishing pipe lines and refineries and securing markets and that certain parties have contracted to furnish a certain amount of oil within a given time and the state has no authority to pass laws to interfere with such enterprise.

It may be urged that the Corsicana Petroleum Company and the Magnolia Pipe Line Company have built pipe lines, built a refinery at Fort Worth and a refinery at Beaumont and Corsicana, and extensive marketing facilities throughout the States of Texas, Oklahoma, and other states; that they have the right to extract from the common source of supply a sufficient amount of crude oil at Healdton to supply all of their market demands and the contracts entered into. Let us assume that these companies control eighty per cent of the total market outlet of this field. They would have the other producers absolutely at their mercy.

A refinery has been established at Ardmore with pipe line facilities from the Healdton field. While this refinery will probably not use more than 2,000 barrels per day, yet in principle is it different from that of the Magnolia? A pri-

vate individual in south Texas may go to an individual producer and buy a half million barrels and at the same time the adjoining property owners that would be immediately drained by extracting this amount of oil from the common source of supply could not sell a barrel of oil. Must the field be turned over entirely to the Magnolia Petroleum [fol. 404] Company, the other pipe line companies and the individual that makes his private contract, and the state be powerless to protect a citizen who has an equal right to take oil from the field?

Justice White says there is no difference in oil and gas inasmuch as they are found in the same strata and both capable of involuntary transmission under the surface of the earth. Hence, marketing and taking gas from the common source of supply would furnish the best example to illustrate the equitable and legal principle involved. In Oklahoma all the large cities are piped for the distribution of gas. The distributing plant is connected with pipe lines reaching the gas field. These particular pipe lines reach all the available markets. The State of Oklahoma passed a law requiring those who had the markets for gas and the pipe lines to purchase gas in a given field from all parties who had gas to offer ratably. Some of the gas companies are now attacking this law in the Federal Court. The state, by law, requires those who may be drilling for oil who strike gas to prevent the gas from escaping into the air. Near Okmulgee a party at great expense in drilling for oil struck a forty-million cubic foot gas well which he offered to sell to the gas companies or pipe lines at their own price and they refused to buy it, but complained to the county attorney, who forced the owner of the gas well to cap same to prevent the gas from escaping. The pipe lines are now taking this gas through another well in the same field and the owner of the capped well must sit idly by with his investment and see the gas extracted from under his land. If the state cannot protect the common owners of property, the Supreme Court of the United —— has yet to find that provision of our Constitution which will permit one owner of a common pool of oil or gas to destroy and exploit the rights of others.

The more recent decisions of the Supreme Court reiterate the principles announced by Justice White, above quoted.

In the case of Lindsley vs. Natural Carbonic Gas Company, 220 U. S. 61, the court said:

"It does not take from the surface owner the right to cap the underground rock and to draw from the common supply but consistently with the continued existence of that right so regulates its exercise as reasonably to conserve the interests of all who possess it. That the state consistently with due process of law may do this is a necessary conclusion from the decisions of the case cited."

(Referring to Ohio Oil Co. vs. Ind. 177 U. S. 190.)

The last case which has been called to our attention is West vs. Kansas Natural Gas Co., 221 U. S. 261. The Supreme Court said:

"And, we repeat, again, there is no question in the case of the regulating power of the state over the natural gas within its borders. The appellees concede the power * * * "

[fol. 405] It is contended that where contracts were made prior to the enactment of the law or prior to the findings of fact herein by the Commission as to the conditions and waste in the Healdton field, that such contracts are binding and that it is beyond the power of the state to impose such restrictions upon one of the parties thereto that the same could be complied with if he should be limited in the amount of oil that he may take from the common source of supply.

No individual producer in an oil field where the source of supply is common has an absolute property in the oil beneath the surface until it is raised and reduced to possession and capable of being removed or transported at the will of the owner. When the same is abstracted from the sand and placed in tanks it has the same legal status as property of the owner as wheat in a granary and the state would have no authority to regulate by law the manner or under what conditions the oil should be disposed of by the owner, unless by reason of quantity or other conditions it became a public nuisance.

Justice White in Ohio Oil Company vs. Indiana, 177 U. S. 205, quoted from Jones vs. Forrest Oil Co. 195, Pa. 374, as follows:

"From these cases we conclude that the property of the owner of land in oil and gas is not absolute until it is actually in his grasp and brought to the surface."

On page 207, Justice White says:

"Reviewing its own (Indiana) previous adjudications which we have cited and those of the Supreme Court of the State of Pennsylvania, to which we have also referred, it was decided that the owners of the surface of the land within the gas field, whilst they had the exclusive right on their land to sink wells for the purpose of extracting the oil and gas, had no right of property therein until by the actual drawing of the oil and gas to the surface of the earth they had reduced these substances to physical possession. It was further held that in consequence, of the nature of the deposits, of their transmissability, of their independence, of the rights of all and of the public at large, the state could lawfully exercise the power to regulate the right of the surface owners among themselves to seek to obtain possession and prevent the waste of the products in which all the surface owners within the area wherein the gas and oil were deposited, as well as the public, had an interest, because in the preservation of these substances the well being and prosperity of the entire community was largely involved. And it was upon the opinion announced in that case that the court rested its decree in the case now under review."

Again on page 210, Justice White says:

"It being true as to both animals, ferae naturae and gas and oil, therefor, that whilst the right to appropriate and become the owner exist, proprietorship does not take being until the particular subject of the right becomes property by being reduced to actual possession."

[fol. 406] An individual may contract to sell one thousand quail. At the time he made the contract there may be no law preventing him from acquiring that number. In the meantime a law may be passed limiting the number of quail which one person may acquire. An individual may sell a certain amount of oil. If he has this oil in storage there is no law preventing him from filling the contract. If he has not the oil in storage he takes his chances under the law of extracting the required amount from the common source of supply under such limitation as may be imposed by the state

for the purpose of guaranteeing to all producers that their rights to take their proportion of the oil from the field shall be protected. This principle is fundamental and is supported by authorities.

The authority of the state to protect coequal rights of individuals whose rights may depend upon drawing a pro rata share of a natural commodity from a common source of supply is not new. More than eighteen years ago the Supreme Court of Colorado had a similar subject under consideration wherein certain farmers in an irrigated district had to depend upon water from one common source of supply. One of the parties had made a contract that he should have a certain amount of water. Afterwards a law was passed requiring the water to be distributed pro rata, according to the ascertained necessities of the individuals.

In the case of White v. Farmers High Line Canal & Reservoir Co., 31 L. R. A. 829, the court said:

"That part of this contract which attempts to give each consumer the right to determine the amount of water to which he is entitled with permission to take the same regardless of the rights of other consumers of the ditch company was declared void by the court of appeals."

The court further said:

"The right claimed by the consumer is a right, the exercise of which is positively prohibited by the statutes of this state. The third section provides that it sh-ll be the duty of those owning or controlling such canals or ditches to appoint a superintendent whose duty it shall be to measure the water from such canal or ditch through the outlet to those entitled thereto according to his or her pro rata share. Where there are a large number of consumers taking water from the same ditch the excessive use by some may absolutely deprive others of water at times when its application to thirsty soil is absolutely necessary to prevent the total failure of growing crops. So, also, as between different ditches, if one, in case of scarcity, takes from a public stream water to which it is not entitled, it must be at the expense of others."

The court further said:

"It is said, however, that as the contract under which the defendant claims in this case was exercised to the passage

of the Act of 1887, the parties to this action are not bound by that statute; * * * this argument has been advanced in many cases, but, we believe, never successfully, where, as here, it is in opposition to the police power of the state."

[fol. 407] The court then cites and reviews: Northwestern Fertilizing Co. v. Hyde Park, 7 U. S. 659; Buffalo East Side R. Co. v. Buffalo R. Co., 111 N. Y. 132; Bertholf v. O'Reilly, 74 N. W. 509; People v. Budd, 117 N. Y. 1; Richardson v. Boston, 65 U. S. 24 How.; Tucker v. Ferguson, 89 U. S. 22 Wall.

The court finally holding:

"So our act of 1887 governing the distribution of water by ditch companies carrying water for hire is binding upon the parties to this action, notwithstanding the agreement of March 22, 1873."

The Commission in this case will predicate its order upon the authority vested in the Commission by Sections 1, 3, 4, and 5 of the law known as the Conservation Act, and particularly that part regulating the equitable taking of oil among the operators.

The producers in this case are complaining. It should not be overlooked however, that the public also has an interest in the prevention of waste of oil. It may be insisted that the wells in the Healdton field may be operated at their maximum capacity and the oil placed in steel storage. Such storage in the Healdton field with one year's insurance costs approximately 25 cents per barrel. The maximum market price for oil in that field is now 30 cents per barrel. Even though there was no waste of oil in steel tankage by evaporation this practice would border on economic waste as between the producers. Should one producer or several producers force the other producers to install steel storage when the oil placed therein is worth but little more than the cost of storage and practically cause the producer to lose all of his rights in the proper production of oil from the common source of supply? We believe this would be economic waste.

We should not overlook the fact that the record in this case shows that the total production of the field is now

70,000 barrels per day. (And from sources outside of the record, it has since been increased to eighty or possibly one hundred thousand barrels per day and it is claimed by the producers could be increased to one hundred fifty thousand barrels within a very short time.)

It is shown from the record that the evaporation of oil in steel storage is from ten to twenty-five per cent of the value of the oil the first year. We do not mean in quantity. The lighter and more valuable oils escape. Hence, if we consider the minimum amount fixed by the witnesses as waste of oil in steel storage to be 10 per cent of the value and 80,000 barrels of oil were stored each day for one year in the Healdton field there would be a loss of eight thousand barrels per day. Would it not be a spectacle for the public to assemble each morning and witness [fol. 408] the destruction of eight thousand barrels of a commodity that is absolutely necessary for the prosperity and business of the country—a commodity which once being destroyed can never be replaced by any artificial means known to science? We may raise an excessive agricultural crop such as cotton. It may be destroyed yet another crop can be produced. It is not so with oil.

It may be claimed that it is to the interest of the public to produce oil in such extravagant and wasteful manner that the price thereof may be reduced to 10 cents per barrel. We witnessed an appalling example of this at Beaumont, Texas, where a great field of oil was discovered and recklessly exploited and operated and the rights of individual owners were destroyed. Millions of barrels of this oil were sold as low as three cents per barrel. It was put upon the market at a price as cheap as one could pump and transport water from the Gulf of Mexico. Railroads installed oil burners; the public used the oil because it was cheap. Within a year's time it was destroyed. Thereupon oil burners were torn from industrial plants at great expense; whereas, if the oil at Beaumont had been produced so as to prevent waste, the oil consumers who had to go back to coal within a short time could have continued to burn oil at reasonable prices for several years. Thereafter gasoline was again placed on the market at 25 cents per gallon and continued at that price for several years.

We are now exploiting the greatest oil fields of the world—Cushing and Healdton. This oil should be pro-

duced so as to prevent waste—not necessarily to influence the price of crude oil, but it should be produced and preserved in such manner as not to be destroyed, so that the public, the users and consumers may receive the full benefits therefrom, and in order that reasonable prices for the product may be enjoyed by the public at large for a number of years..

When the Healdton and Cushing fields are destroyed this may mark the passing of the last great oil fields in the mid-continent. Immediately gasoline and fuel oil would advance to the old prices of 25 cents per gallon for gasoline and more than $1.00 per barrel for fuel oil.

The Legislature had in mind mainly two objects when Secs. 1, 3, 4 and 5 of this law were passed; First, to regulate the production of oil by the operators so that the weaker or small producer would be guaranteed his pro rata part of the oil; and, second, that the oil should be produced and preserved in such manner that the public would enjoy the full benefits thereof at reasonable prices, not only for the present time but for years to come.

[fol. 409] It is insisted that more or less confusion will necessarily arise because of different producers selling oil individually. By the cooperation of the producers Sec. 4 of the act can be carried out and the oil pro rated and all contracts filled with but little, if any, difficulty. It would be unreasonable to prevent oil to be taken from the sand because some producer may refuse to participate in the market, thereby causing other properties in the field to be shut down. When a producer is given a reasonable opportunity to deliver his pro rata part of the oil being taken from the sand and he fails to embrace that opportunity, he should thereafter be estopped from asserting his right to prevent others in the common source of supply taking oil in the meantime.

The operation of this law, to a large extent, will have the effect of making all purchasers of oil common purchasers to the extent of giving all parties who had not otherwise run their pro rata share of oil an opportunity to participate in the fulfillment of this contract. Otherwise the party making the contract would be limiting his ability to fulfill the same to the extent of his pro rata of oil being taken from the field. It is immaterial whether the oil is run by a

common purchaser, common carrier or otherwise. The total amount taken from the field must be produced by the different producers or an opportunity given the different producers to participate in the production of the amount so taken.

Wherefore the Commission considers, orders and adjudges that in order to prevent waste and to regulate the taking of oil from the common source of supply, and to prevent the inequitable and unfair taking of oil from the common source of supply in the Healdton field, the following rules and regulations are hereby made and established:

(1) The practice, plan or device of placing or holding crude oil in earthen reservoirs (sometimes called pond storage) heretofore in use in the Healdton field is hereby discontinued and prohibited.

(2) The use of wooden or steel storage is permitted under the limitations, restrictions and qualifications hereinafter found.

(3) No operator (person, firm or corporation having the right to drill into and produce oil from the common source of supply) shall take from the potential production of the Healdton field more than his fair and equitable proportion thereof, and in order that the potential production of said field may be determined for the purpose of establishing a basis for the fair and equitable taking of oil from the com- [fol. 410] mon source, it is ordered that A. L. Walker, heretofore appointed as agent of the Commission, or his successor in office, make a gauge of each oil well in said field and as its rules and regulations for the taking or making of such gauge, the Commission authorizes its agents to use and uniformly apply the method and plan now recognized and in common use.

(4) That upon ascertaining the potential production of the field the agent of the Commission shall thereupon ascertain the transportation or market facilities and ascertain the amount of oil necessary to meet the daily market demands.

(5) That the daily actual production of the oil field shall be restricted and confined to such a quantity as is necessary to supply the probable daily market demand with the ex-

ception hereinafter provided; that is to say, the raising of the oil from the sand or the production from the common source of supply shall be done by the operators in said field only to the extent of the amount necessary to meet the ascertained daily market demands and under the conditions set forth in the rules and regulations of the Commission.

(6) The capacity or potential production of each well in said field shall be ascertained in the manner and by the means above outlined and thereupon the owner in the operation thereof shall be restricted in raising oil from underground to the surface to the following extent; that is to say, the agent of the Commission in said field shall in accordance with these rules ascertain the ratio of the daily market demand to the potential production and then the actual production shall be limited to the market demand, and in supplying the market demand the operators shall be permitted to produce ratably, that is to say, only such a per cent of the possible production of each well as is necessary to make up upon the whole the daily market demand.

(7) In order to guard against unforeseen casualties and contingencies and to the end that the market may not at any time be deprived of an adequate supply, the use of wooden or steel storage permitted as aforesaid is hereby authorized for the storage of the whole or potential production of any well or number of wells on any one lease or property for a period of ten days, but in running the oil so produced, it shall be run according to the fair and equitable pro rata of the operator according to the plan hereby established, or in other words, if an operator chooses to accumulate his whole possible production for a period of ten days, then upon the sale of the same he shall be wholly precluded and prohibited from raising any other oil from the sand to the surface until he is due another run upon the pro rata basis.

[fol. 411] (8) The Commission in avoidance of any controversy pertinent to the legal status of common carrier and common purchaser runs applies the rules and regulations wholly, and therefore both directly and indirectly, to the production of oil and not to the marketing of the same, or rather to the raising of the oil from the sands to the surface, and hereby authorizes its agent in the regulation of fair and equitable production as aforesaid to prohibit the

raising of oil from the sands to the surface except such as can be marketed under these rules and regulations.

(9) The storage of oil by any common purchaser or purchasers bought ratably in open market bona fide to be held as stock under the usual custom of the trade for the purpose of refining or for sale of the consumer is not prohibited by the rules hereinbefore prescribed.

(10) These rules shall not be interpreted so as to require the oil to be produced ratably each day, but the amount produced from any one well within a period of thirty days shall not exceed the pro rata permissible daily production.

This order shall be in full force and effect on and after its publication as required by law.

Corporation Commission. (Signed) Geo. A. Henshaw, Commissioner. (Signed) W. D. Humphrey, Commissioner.

Attest: (Signed) Edw. F. McKay, Secretary, Acting.

Oklahoma City, June 5, 1915.

Chairman Love did not participate in the consideration or promulgation of this order on account of sickness.

[fol. 412] Letter of Instructions, marked Defendants' Exhibit "D", offered in evidence at the time of the submission of the cause on August 3, 1931, in words and figures as follows, to-wit:

DEFENDANTS' EXHIBIT D

Letter of Instructions

Oklahoma City, June 10, 1915.

Mr. A. L. Walker, Agent for the Corporation Commission, Healdton, Oklahoma.

DEAR SIR: The Corporation Commission is advised by you as follows:

(1) That at the time House Bill No. 168, sometimes referred to as the Oil Conserveation Act, was passed, to-wit: on February 11, 1915, certain parties operating in the

Healdton oil field had sold and continued to sell oil produced in said field to purchasers not acting as common purchasers in the field, and that such parties or operators had taken from said field oil in excess of their pro rata share of the oil deposit; and that such parties or operators on account of the advantage so obtained have been denied by the agent of the Commission, sometimes referred to as the Conservation Officer, the privilege of running their pro rata share of the oil produced from the common supply since the date of the act on the theory that such producers having taken as indicated from said field or from the common supply an amount of oil equal to (and possible greater than) their pro rata part or share should be in equity and good conscience restrained from over-reaching the other producers operating in said field and being common owners of the common supply by denying them of the privilege of participating in the common purchaser runs extended ratably to the common owners of the common supply.

(2) That since the enactment of said law certain producers or operators have sold to parties not buying as common purchasers in said Healdton field an amount of oil exceeding the pro rata part or share of such parties in the oil of said field, constituting the common supply of the common owners thereof; and that in addition to the amounts so taken and disposed of (by common carrier runs as distinguished from common carrier purchasers) such parties are insisting that they should participate ratably in runs made to common purchasers without being charged with their common carrier runs.

You, after advising the Commission, as stated, request instructions covering said propositions.

Referring to the first proposition your attention is called to Revised Laws of Oklahoma 1910, Section 4307:

"Every corporation, joint stock company, partnership or other person, claiming or exercising the right to carry or transport crude oil or petroleum or any of the products thereof, by pipe line for hire or otherwise, within the limits of this State, as allowed by and upon compliance with the requirements of this article, as owner, lessee, li- [fol. 413] censee, or by virtue of any other right or claim, which is engaged in the business of purchasing crude oil or petroleum therein, shall be deemed common purchasers

thereof and shall purchase all of the petroleum of, or which may be reasonably reached by its pipe lines or gathering branches, without discrimination in favor of one producer or one person as against another, and shall fully perform all of the duties of a common purchaser; but if it shall be unable to perform the same, or shall be legally excusable from purchasing and transporting all of the petroleum produced, then it shall purchase and transport petroleum from each person or producer ratably in proportion to the average daily production; and such common purchasers are hereby expressly prohibited from discriminating in price or amount for like grades of oil or facilities as between producers or persons; and in the event such purchaser is likewise a producer, it is hereby prohibited from discriminating in favor of its own production or storage, or production or storage in which it may be interested, directly or indirectly, in whole or in part, and its own production and storage shall be treated as that of any other person or producer."

This section seemingly is mandatory and it prohibits discrimination by a common purchaser in favor of or against any producer or operator. It appears to be the duty of all common purchasers under this section to purchase ratably according to the production offered by the operators or owners of any common supply, but this law does not devolve upon a common purchaser the duty of inquiring after purchasing ratably, whether the purchaser stored the remainder or would sell it to other parties.

On February 11, 1915, this law was supplemented by the Conservation Act and now while it remains the duty of the common purchaser to buy ratably, the performance of this duty is aided by the latter act requiring the operators to produce ratably so that pro rata sales will follow as a natural consequence.

Such regulations as existed prior to the enactment of House Bill No. 168 pertained to common purchasers and did not in any way refer to the lifting of the oil from the sand and after delivering his pro rata of accumulated production to the common purchaser, the operator could store the remainder of his oil or sell it in any available market, but in the course of time the Supreme Court of the United States held that pipe lines are common carriers, and this

changed market conditions theretofore depending upon the activity of common purchasers, so that thereafter they depend both upon the capacity of the common carriers and the demands of the common purchasers.

All the regulations up to date of the latter act were in aid of the common purchaser requirements of the former act, and they in no way attempted to provide what operators should do with oil produced over and above the supply demanded by the common purchasers; hence, with apparent dependence upon the law all operators with oil above ground might claim the right to sell such supply ratably to the common purchasers, up to February 11, 1915, or since said time, provided the production accumulated prior thereto.

Referring to the second proposition, your attention is

[fol. 414] called to House Bill No. 168, Section 4.

"That whenever the full production from any common source of supply of crude oil or petroleum in this state can only be obtained under conditions constituting waste as herein defined, then any person, firm or corporation, having the right to drill into and produce oil, from any such common source of supply may take therefrom only such proportion of all crude oil and petroleum that may be produced therefrom, without waste, as the production of the well or wells of any such person, firm or corporation, bears to the total production of such common source of supply. The Corporation Commission is authorized to regulate the taking of crude oil or petroleum from any of such common sources of supply, within the State of Oklahoma, as to prevent the inequitable or unfair taking, from a common source of supply, of such crude oil or petroleum by any person, firm, or corporation, and to prevent unreasonable discrimination in favor of any one such common source of supply as against another."

It is to be observed that the Corporation Commission is authorized to regulate the taking of oil from any common source of supply within the state so as to prevent the inequitable and unfair taking thereof, or in other words the legislature seems to constitute the Corporation Commission an arbiter to see that the common supply is justly and equitably enjoyed by the common owners thereof.

It has been said that the laws exist primarily and that it is the function of legislatures and courts to define and apply it, and if so there is nothing new in the embodiment of this statute, however, novel the application thereof might seem.

Under this statute no producer has a legal right to take from the common source of supply more than his pro rata share thereof, and in equity and good conscience, and, therefore, in law, he had no right to do so independent of the statute.

In the recent order of the Commission definite findings were made concerning conditions in the Healdton field, and under the statute and likewise under the law independent of the statute as set forth and discussed in said order, no operator has a right to take from the sands in said field more oil than he can market without waste, and in accordance with the just and equitable taking provided for in the order which is to be ratably according to the ratio of the average daily market demands to the average daily potential production measured by concurrent periods of thirty days.

If you find parties disposed to cavil with the law it might be suggested that the same is not dependent upon the statute but exists without enactment being called forth by conditions necessitating the same, and that this principle has been recognized by the owners and operators of the Healdton field. In this we are referring to the law and not necessarily to the authority of the Commission, under which law even though the Commission might not act, a court of [fol. 415] equity would command the right and restrain the wrong. It is a matter of common knowledge too recent and too well understood to have escaped even the commercialized mind and conscience that at a time when the operators in the Healdton field admitted that they were unable to protect themselves against each other, they applied to this Commission for assistance and that upon April 30, 1914, and November 26, 1914, the Commission, acting upon the unanimous request of the common owners of the common supply in the Healdton field, undertook to offer the assistance prayed for by them in an endeavor to promote justice and equity in the operations in said field.

At this time it is too late for parley concerning the dates of legislative enactments for justice and equity as indicated are commanded by the law independent of the statute and

the operators in said field are estopped by their own acts from contesting the plan by them invoked and by the Commission at their request adopted.

If this plan cannot be enforced by the Corporation Commission with reference to the conditions existing prior to February 11, 1915, a court of equity is not without jurisdiction.

The Commission in the order above mentioned found upon the hearing of April 9, 1915, that the conditions in the Healdton field were such that the daily realization of the potential production would constitute waste; that the market demand and transportation facilities were inadequate to take care of the entire production and that storing of the surplus over and above the market demands in steel storage would result in waste, both actual and economic.

These conditions existed not only upon the date of the order but at the time of the trial and likewise upon the date of the enactment of the conservation law, and out of the conditions found by the Commission which were already known to the public, the said act and the necessity therefor arose.

You are, therefore, advised to direct your attention to conditions in the Healdton field, and see that oil is produced ratably and only ratably in accordance with the order of the Commission, and if any producer or operator in said field has taken from the common source of supply since February 11, 1915, (an umpire was in the field at said time) more than his ratable proportion or just and equitable share thereof, you will so adjust matters as to equalize the production ratably, since the date aforesaid (that being the date of the conservation bill) to the end that the common owners of the common supply in said field may enjoy ratably their common rights therein.

Very truly yours, W. D. Humphrey, Commissioner.

(See following page.)

[fol. 416] I concur in the above instructions with the suggestion that in cases where the common purchaser had not taken the full pro rate share of a producer prior to the enactment of the law, because such producer had sold oil to others than a common purchaser and had in fact taken his full pro rata share from the common source of supply, such

common purchaser may perform his duty under the law as it existed at that time, provided the producer has oil in storage from which the deficiency in his pro rata runs to the common purchaser may be made; but that such producer should not take oil at this time from the common source of supply to make up this deficiency.

Geo. A. Henshaw, Commissioner.

[fol. 417] Endorsed: Filed October 17, 1931. Theodore M. Filson, Clerk.

[fol. 418] Clerk's certificate to exhibits omitted in printing.

Endorsed on cover: File No. 36,299, 36,300. W. Oklahoma D. C. U. S. Term No. 485. Champlin Refining Company, appellant, vs. Corporation Commission of the State of Oklahoma and Paul Walker, E. R. Hughes, and C. C. Childers, etc., et al. Term No. 486. Corporation Commission of the State of Oklahoma and Paul Walker, E. R. Hughes, and C. C. Childers, etc., et al., appellants, vs. Champlin Refining Company. Filed October 26, 1931. File No. 36,299, 36,300.